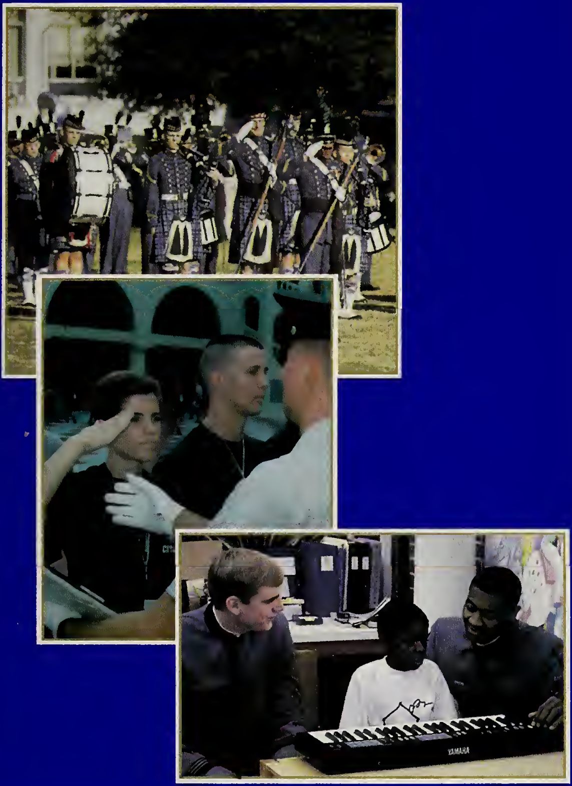
# THE CITADEL®



## *The Military College of South Carolina*

171 Moultrie Street • Charleston, South Carolina 29409

## NONDISCRIMINATION POLICY

The Citadel is committed to providing equal opportunities to men and women students in all campus programs, including intercollegiate athletics in order to make The Citadel the best coeducational military college in America.

This commitment requires that no discrimination shall occur in our admissions policies, academic programs and services, as well as employment practices on the basis of sex, race, color, religion, or national origin. This policy is in accordance with Title IX of the Educational Amendments of 1972, section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 as amended. Inquiries concerning the application of Title IX and other nondiscrimination laws may be referred to Mr. Michael Vanderhurst, Affirmative Action Officer and Title IX Coordinator, in the office of Human Resources, 803-953-5252, Bond Hall Annex, 171 Moultrie Street, Charleston, South Carolina, 29409, or to the Assistant Secretary of Education, Civil Rights Division, US Department of Education, Washington, DC, 20201-2516.

# THE CITADEL

THE MILITARY COLLEGE OF SOUTH CAROLINA
CHARLESTON, S.C.

FOUNDED 1842

## CATALOG ISSUE
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"I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."—Milton

**MAJOR GENERAL JOHN SOUTHY GRINALDS, USMC, RETIRED**
*President*

**MAJOR GENERAL ROGER C. POOLE**

*Vice President for Academic Affairs and Dean of the College*

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CIRCA 1919. Citadel cadets study in library of the Old Citadel on Marion Square.

December 23, 1892. Corps of Cadets on the quadrangle of the Old Citadel on Marion Square.

# A Brief History of The Citadel

## Origins

In 1822, as a result of Denmark Vesey's unsuccessful slave insurrection, the South Carolina Legislature passed an "An Act to Establish a Competent Force to act as a Municipal Guard for the Protection of the City of Charleston and Vicinity." Land on the, north end of Marion Square was selected for an arsenal and guard house, and in 1829, the architect, Frederick Wesner, completed the building which was known as The Citadel. A similar facility was constructed in Columbia, South Carolina, which was known as The Arsenal. State troops occupied both sites at a cost of $24,000 a year.

Governor John P. Richardson felt that guard duties should be combined with a system of education. On December 20, 1842 the South Carolina Legislature passed an act establishing the South Carolina Military Academy. The Citadel and The Arsenal were converted into educational institutions, and students replaced the state troops. In 1845, the role of The Arsenal was changed to the instruction of freshmen. As a result, cadets spent their first year in Columbia and transferred to The Citadel for the remaining three years. The South Carolina Military Academy became known for its high academic standards and strict military discipline.

## Civil War Period

Enrollment at The South Carolina Military Academy increased from thirty-four students in 1843 to two hundred ninety six in 1864. The $200 tuition in 1843 increased to $1,200 in 1864. When South Carolina seceded from the Union in December 1860, Major Robert Anderson moved his garrison of U.S. troops to Fort Sumter and requested reinforcements from the federal government. On January 9, 1861, Citadel cadets stationed on Morris Island fired on the U.S. steamer the *Star of the West*, which failed to supply Fort Sumter with troops and supplies. This was the first overt act of the war.

On January 28, 1861, the Corps of Cadets was made part of the military organization of the state and was known as The Battalion of State Cadets. The Arsenal and The Citadel continued to operate as military academies; however, classes were often disrupted when the governor called the cadets into military service. Mounting and manning heavy guns, guard duty, and escorting prisoners were among the services performed by the cadets. On February 18, 1865, The Citadel ceased operation as a college when Union troops entered Charleston and occupied the site. The Arsenal was burned by Sherman's troops and never reopened.

## Reopening

It was not until 1882 that the Board of Visitors regained possession of The Citadel and The South Carolina Legislature passed an act to reopen the college. The 1882 session began with an enrollment of 185 cadets.

## Name Change

The name of the college was officially changed in 1910 to The Citadel, The Military College of South Carolina. The word *Academ*y had become synonymous with secondary schools, and the public had the misconception that the South Carolina Military Academy was a preparatory school.

## New Campus

The Citadel had outgrown its campus on Marion Square, despite numerous building additions, and could accommodate only 325 students. In 1918, the City of Charleston gave the State of South Carolina one hundred seventy-six acres on the banks of the Ashley River for a new campus. In 1922, the college moved to its current location.

Today, the picturesque campus contains twenty-four major buildings. There is an enrollment of approximately 1,900 cadets, and nineteen degree programs are offered. Women were admitted into the Corps of Cadets in 1996. The College of Graduate and Professional Studies offers, during the evening and summer, coeducational undergraduate and graduate degree programs. *The U.S. News & World Report* has ranked The Citadel among the best colleges in the region in their surveys of "America's Best Colleges."

## Military Service

As early as 1846, Citadel cadets served as drill instructors for recruits. Cadets served as drill instructors for the recruits of South Carolina's Palmetto Regiment prior to the regiment's departure for the Mexican War in 1846.

During the Civil War, the Corps of Cadets participated in eight engagements. The flag of the Corps of Cadets includes eight battle streamers representing those engagements and one streamer representing the Confederate States Army.

In the war with Spain in 1898, more Citadel alumni volunteered for service than were needed. In World War I, Citadel graduates were among the first contingents of American troops to fight with the English and French divisions. Citadel cadets have performed military service for their country in all wars since World War II. Twenty-three cadets served on active duty as members of the National Guard and Reservists during Operation Desert Storm.

## Archives and Museum

The Archives was founded in 1966 when General Mark W. Clark donated the papers relating to his military career. Today, there are over three hundred collections in the Archives which pertain to The Citadel or have military significance. Some notable collections include the papers of Pulitzer Prize winning historian, Bruce Catton and the Civil War letters of 1857 Citadel graduate, General Ellison Capers. Authors and scholars from the United States and Europe frequently visit the Archives to research the collections.

The Museum features the history of The Citadel from its founding in 1842 to the present. Photographs from the Archives highlight the exhibits which portray the social, military, academic, and athletic aspects of cadet life. Citadel rings from 1895 to the present are exhibited. Citadel graduates who lost their lives in all wars since World War II are memorialized in photograph albums in the Museum.

# General Information

## Accreditation

The Citadel is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Bachelor's, Master's, and Specialist degrees. Civil Engineering and Electrical Engineering Programs are accredited by the Engineering Accreditation Commission/Accreditation Board for Engineering and Technology. The undergraduate program in Business Administration and program leading to the Master of Business Administration are accredited by the American Assembly of Collegiate Schools of Business.

Programs for the preparation of secondary teachers at the bachelor's level, for the preparation of secondary and special education teachers at the master's level, for the preparation of guidance counselors at the master's and specialist degree levels, and for the preparation of school superintendents at the specialist degree level are accredited by the National Council for Accreditation of Teacher Education. The head of the Department of Education serves as the Director of Teacher Education.

The B.S. Chemistry Program is accredited by the American Chemical Society.

## The Mission of The Citadel

The Citadel, the Military College of South Carolina, is a state-supported four-year comprehensive college. Throughout its history, The Citadel's primary purpose has been to educate undergraduates as members of the South Carolina Corps of Cadets and to prepare them for postgraduate positions of leadership through academic programs of recognized excellence supported by the best features of a structured military environment. The cadet lifestyle provides an environment which supports the growth and development of character, physical fitness, and moral and spiritual principles.

A complementary purpose of The Citadel, realized through the College of Graduate and Professional Studies, is to serve the citizens of the Lowcountry and the State of South Carolina through both undergraduate and graduate degree programs, application and utilization of research, and a broad range of professional development opportunities. The same faculty and academic support services are used in both programs.

The Citadel supports South Carolina's diverse system of higher education, through which each student can reach his or her educational objectives. In accomplishing its mission, The Citadel attempts to attract the best possible students from its respective service areas. For the Corps of Cadets, a co-educational, residential program of approximately 2000, the primary service area is regional, with approximately 50% of each freshman class coming from South Carolina, although the reputation of the school does bring a number of students from all parts of the United States and many foreign countries. The primary service area for the coeducational College of Graduate and Professional Studies is the South Carolina Lowcountry. Through its undergraduate and graduate programs, the College of Graduate and Professional Studies is prepared to serve a degree-seeking population of approximately 2000.

The Citadel provides a quality education through extensive grounding in liberal arts and sciences. Its primary emphasis is on undergraduate education through a wide range of baccalaureate degree programs in the humanities, social and natural sciences, business administration, engineering, and education. The college's graduate programs offer degrees at the master's and specialist levels. Meeting the needs of the South Carolina Lowcountry in terms of instruction, public service, and research, including such initiatives as cooperative programs with other educational institutions, is an important part of The Citadel's mission.

The Citadel strives to produce graduates who have insight into issues, ideas, and values that are of importance to society. It is equally important that Citadel graduates are capable of both critical and creative thinking, have effective communication skills, can apply abstract concepts to concrete situations, and possess the methodological skills needed to gather and analyze information.

The Citadel recognizes that the excellence of its educational programs is dependent upon the quality of its faculty. It also acknowledges and endorses the teacher-scholar ideal: that Citadel faculty will address audiences beyond the immediate confines of the College by sharing their knowledge with other scholars and with the public. Traditionally, such sharing is accomplished through teaching and lecturing, researching, writing, publishing, and public service.

## The Purpose of The Citadel's Military Environment

The Citadel seeks to provide the best qualities of a military and disciplined environment to support the growth and development of character, physical fitness, and moral and spiritual principles, thereby preparing its students to meet the requirements of citizens and especially of leaders. From the first year, with the Fourth Class System, through the senior year, the military environment requires additional duties and responsibilities not normally found on a college campus.

The military environment at The Citadel also attempts to draw out and cultivate such values as truth, honor, integrity, and courage. Qualities of proper behavior and ettiquette are stressed, and excellence in military bearing and appearance is taught. Whether in military or civilian life, the testimony of the value of this institution in service to the Nation, State, and local communities is prominent.

# Requirements for Admission

The Citadel gives equal consideration to all applicants who meet the personal, physical, and educational requirements for admission to the Corps of Cadets. The Citadel seeks to enroll well-rounded, mature students whose motivation and educational achievements indicate that they are prepared to do college level work with a reasonable probability of success. Therefore, each admission portfolio is reviewed individually and must include at least the following:

a. *High School Record* (courses, grades, class standing). The high school record provides insight into an applicant's motivation, study habits, and scope of interest. Particular attention is given to grades earned in English, mathematics, science, history, and foreign languages. To be eligible for admission, the student must have earned a cumulative grade point ratio (GPR) of at least 2.00 on a 4.00 scale.

b. *College Entrance Examination Board Test Scores.* Considerable emphasis is placed on an applicant's test scores on the College Entrance Examination Board's Scholastic Aptitude Test (SAT) or the American College Testing Program's Assessment Exam (ACT). Although these test scores represent only one factor in the determination of an applicant's acceptability, they tend to indicate the applicant's educational development with respect to contemporaries; therefore, the applicant's scores provide a reasonable evaluation of actual preparedness and potential to do college level work. Students whose SAT score is less than 920 (recentered) or ACT score is less than 20 are generally not eligible for academic acceptance.

In general, The Citadel seeks to determine acceptability through a thorough evaluation of each applicant's character, maturity, motivation, readiness for college, amenability to a regimented life style, emotional stability, and potential to contribute to cadet life. Where any one of these factors is in question, the College may obtain additional information by means of interviews with the applicant and/or the applicant's parents or other persons who know the candidate. If it is deemed necessary, The Citadel may request the applicants to present a written report on goals in life, reasons for choosing The Citadel, or reasons for choosing a particular major field of study.

## Initial Acceptance and Withdrawals

New cadets are admitted to the Corps of Cadets only in the first semester of the school year but may commence their academic work in the preceding summer.

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return to The Citadel in August following any college year, a written request for an honorable discharge must be sent to the registrar.

## Admission Procedure

Formal application for admission must be made by the applicant. An application form should be requested from the Office of Admissions, The Citadel, 171 Moultrie Street, Charleston, South Carolina 29409. The Citadel admits freshmen into the South Carolina Corps of Cadets only in the fall semester of each year.

A nonrefundable application fee of $35 must accompany each application. Applications for admission may be submitted during the candidate's junior year in high school. All students are encouraged to apply no later than the fall semester of the prospective cadet's senior year in high school. In addition, the applicant should make early arrangements to take the SAT or ACT test and have these test scores sent to The Citadel. Prospective cadets are responsible for having the official high school transcript sent directly to The Citadel's Office of Admissions.

The Citadel will advise the applicant of subsequent procedural actions as they are necessary.

A reservation fee of $150 is required of all new cadets accepted for enrollment. This reservation fee will be applied toward the first installment of regular college fees; $100 is not refundable to those students who cancel their reservations after May 1.

Each applicant must undergo a thorough medical examination. Acceptance is contingent upon the results of this test. Only The Citadel's forms, which are provided by the Office of Admissions, may be used to report these results. The medical examination form shows the immunizations required by The Citadel.

## Personal Requirements

Applicants to the South Carolina Corps of Cadets must be at least five feet in height, and physically qualified for military duty as determined by the college physician. Should an accident, injury, or serious illness in any way change the physical status of the applicant after acceptance but prior to arrival on campus, the college physician must be informed immediately. Any physical impairment could result in cancellation or postponement of admission. In addition, an applicant must meet the following personal requirements:

a. Applicants must be at least 16 and less than 22 years of age on the day of matriculation at The Citadel. Exceptions to this policy are made only under extremely extenuating circumstances and with the permission of the Vice President for Academic Affairs.
b. Applicants may not be married. (If cadets marry, they will be discharged immediately.)
c. Applicants must not have a record of conviction of a criminal offense showing poor moral character.
d. Applicants are expected to complete the Citadel Physical Fitness Test (CPFT) successfully prior to arrival on campus. This test will be administered for record early in the Fourth Class Training, and individuals who do not meet standards will be required to participate in remedial physical training.

## High School Course Requirements

All applicants for admission to The Citadel must be graduates of accredited high schools or must have satisfactorily completed the General Education Development (GED) examination. By this, the basic requirements for admission to the College comply with standards prescribed by the South Carolina Commission for Higher Education (CHE).

Those secondary school subjects which are required are as follows:

| **Area** | **Units** | |
|---|---|---|
| English | 4 | At least two having strong grammar and composition, at least one in English literature, and at least one in American literature. |
| Mathematics | 3 | These units must be Algebra I, Algebra II and Geometry. Applicants who plan to major in mathematics, computer science, chemistry, physics, or engineering and who have not completed at least one-half unit of trigonometry will be required to complete MATH 119 with a grade of C or higher prior to enrolling in calculus. |
| Laboratory Science | 2 | At least one unit each of two laboratory sciences chosen from biology, chemistry, or physics. Earth science or physical science courses **will not** meet this requirement. A third unit of a laboratory science is strongly recommended. |
| Foreign Language | 2 | Two units of the **same** foreign language. |

| | | |
|---|---|---|
| Additional Social Studies | 2 | Half units each of economics and government are strongly recommended. |
| Other | 1 | One unit of advanced mathematics or computer science or a combination of these; or one unit of world history, world geography, or Western civilization. |
| U.S. History | 1 | |
| Physical Education or ROTC | 1 | |

Prior to entering The Citadel, each applicant should take steps to address any weaknesses in preparation in English or mathematics. The Citadel offers courses in these areas during each summer. Because of the widespread use of microcomputers on campus, typing skills are recommended for incoming students.

### The Citadel's Policy on Testing for Illegal Drugs

The Citadel has a clear and unwavering policy of zero tolerance for drugs. Whether on campus or off, the possession, solicitation, distribution, sale, or use of hallucinogenic, narcotic, other controlled drugs or substances, or any drug paraphernalia, except in accordance with a legal prescription for such substance, drug, or paraphernalia for the student possessing or using it, will result in expulsion. This policy does not permit cadets to tolerate these actions by fellow cadets. In support of this policy, The Citadel reserves the right to test members of the Corps of Cadets periodically for the presence of illegal drugs and other controlled substances. Agreeing to participate in this program of testing for drugs is a condition of acceptance at The Citadel. Refusal to participate in this testing may lead to expulsion from the college.

### Mathematics Placement

A student pursuing a B.S. degree in any of the fields of chemistry, computer science, engineering, mathematics, or physics must begin mathematics at The Citadel with MATH 131 (Analytic Geometry and Calculus I). Admission to MATH 131 is permitted as follows:

a. The student may earn a sufficiently high score on the mathematics portion of the SAT. This test score and the student's background in mathematics are subject to review by the Department of Mathematics and Computer Science.

b. The student may complete MATH 119 (College Algebra and Trigonometry) with a grade of C or higher. Each student whose planned major requires calculus (MATH 131) will be tested by the Department of Mathematics and Computer Science prior to the beginning of classes each fall. **Those students whose backgrounds do not include trigonometry will, without exception, be placed in MATH 119.** Other students whose preparations in algebra and/or trigonometry are determined to be inadequate will also be required to complete this course.

In all cases, final determination of qualification rests with the head of the Department of Mathematics and Computer Science.

## English Placement

The Department of English is responsible for the proper placement of students in freshman English courses. In determining placement, the department uses scores earned on the verbal portion of the Scholastic Aptitude Test (SAT), as well as results of the department's own writing test, administered each fall prior to the beginning of academic classes. Students who qualify are awarded Pass/Fail credit for ENGL 101. Students are not normally permitted to bypass both ENGL 101 and 102. Students who elect to complete courses they have been authorized to bypass must take these courses on a Pass/Fail basis.

## Language Placement

Students pursuing any major other than civil or electrical engineering, education, or the teaching track in physical education must complete four semesters of the same foreign language. The Department of Modern Languages is responsible for the proper placement of students in all language courses. In determining placement, the department considers the student's past classroom and extramural language experience as well as results of the department's own written and oral tests, administered each fall prior to the beginning of academic classes.

Exempted credit will be awarded for 101, 102, 201, and 202 French, German, or Spanish only if the Department of Modern Languages has determined that previous classroom experience warrants and if the student in question has successfully completed the next course in the same language at The Citadel or has transferred the appropriate course to The Citadel.

The language facility of students whose previous foreign language classroom work is in a foreign language other than French, German, or Spanish or whose foreign language training is experiential will be evaluated by the Department of Modern Languages. Based on the recommendation of that department, these students may bypass all or part of the foreign language requirement. For those who have had experiential training, bypassed courses must be replaced by elective courses. Students who elect to complete courses they have been authorized to bypass must take these courses on a Pass/Fail basis.

## Entrance Examinations

All applicants for admission to The Citadel are required to take the College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing (ACT) Assessment Tests.

If an applicant lists The Citadel on either the SAT or ACT examination, the test score will be sent to The Citadel approximately 30 days after the tests are taken. An applicant should complete the required entrance examinations no later than February of the student's senior year in high school.

Students from a foreign country whose native language is not English must receive satisfactory scores (generally, a minimum of 500) on the Test of English as a Foreign Language (TOEFL). Students who score less than 500 on the TOEFL are generally not eligible for academic acceptance. The TOEFL is prepared and administered by the Educational Testing Service of the College Entrance Examination Board and must be taken no later than March 1 of the spring preceding admission. Foreign students whose English language facility is judged to be less than adequate will be required to complete MLNG 100, "English as a Second Language," as a prerequisite to ENGL 101.

In order to apply for these tests, the applicant must write directly to College Entrance Examination Board, ATP, Box 6155, Princeton, N.J. 08540. These tests are normally offered four times each year (usually in September, November, February, and May) at locations throughout the United States and in some foreign countries. An application to take these tests must be submitted to the College Entrance Examination Board at least one month prior to the date of desired testing.

## Transfer Student Admissions

A student who is applying for admission to the Corps of Cadets as a transfer student from another accredited college or university must have an official transcript sent directly from any college or university previously attended to the Admissions Office of The Citadel. It is the responsibility of entering students to have their transcripts sent to The Citadel. In addition to meeting all the requirements listed above for cadet admission, a transfer student must have completed a minimum of two semesters as a full-time student (minimum 12 hours each semester) maintaining a GPR of 2.0 (on a 4.0 scale). Students presenting college transcripts with less than two full-time semesters will be reviewed on a case-by-case basis.

*Transfer students must complete a full year in the Fourth Class System regardless of the number of academic credits transferred to The Citadel.*

## CEEB Advanced Placement Program

The Citadel awards advanced placement credit to applicants who score three (3) or higher on appropriate examinations. Applicants desiring Advanced Placement credits must have the official score report form sent directly to The Citadel from CEEB. A complete listing of The Citadel's courses that may be completed through Advanced Placement credit may be obtained by contacting the Registrar's Office.

## College Level Examination Program

The Citadel also awards credit through CLEP Subject Examinations as provided by the Council on College-Level Examinations of the College Entrance Examination Board. The following conditions must be met:

1. The score must be equal to or above the mean score achieved by students on the national norm sample who earned a grade of "C" in a regular college course on the subject.
2. The amount of credit to be awarded will be determined by the scope of material measured (i.e., one or two semesters).
3. Credit will be awarded only for those subject examinations for which there are equivalent courses at The Citadel.
4. No student will be permitted to acquire more than 30 semester credit hours through CLEP Subject Examinations.
5. Students will not be granted credit through CLEP for any course previously taken at The Citadel, whether passed or failed, either for credit or audit.

A complete listing of courses that may be completed through CLEP may be obtained by contacting the Registrar's Office.

# Academic Policies

Any exceptions to policies stated in this catalog, purported to have been made verbally to a student by an official of the college, are null or void unless documented with a signed statement from the college official.

*A curriculum or graduation requirement, if altered, is not normally made retroactive unless the alteration is to the student's advantage or is in the best interest of an academic major and can be accommodated within the span of years normally required for graduation. Should a requirement be made retroactively, ample warning will be given in writing.*

## Grades

Only letter grades are given to evaluate a student's progress. The following definitions of letter grades are applicable:

1. “A” represents superior attainment on the part of the student.
2. “B” represents work that is clearly above the average, but not superior.
3. “C” represents average attainment of the basic standards set for the course.
4. “D” represents a minimum attainment of the basic standards.
5. “F” represents failure.
6. “W” represents withdrawal from a course prior to the official deadline which is indicated in the college calendar and is no earlier than the Wednesday following the midterm grading period. Beyond that point, students will receive the grade of “F” should they fail to complete the course or complete it unsuccessfully. Under extenuating circumstances, the grade of “W” may be awarded after the established deadline to withdraw from a course. Such an action is taken only upon the recommendation of the instructor and requires the concurrence of the Dean of Undergraduate Studies. Supporting evidence is the responsibility of the student and must be submitted in writing to the Dean of Undergraduate Studies.
7. The notation of “I” (for Incomplete) is used in instances when course requirements have been very nearly met but for authorized reasons (illness, injury, family emergency, etc.) cannot be completed during the current semester. To be eligible for the grade of “I,” students work must be satisfactory at the time they are forced to terminate their participation in the course. Unsatisfactory work will result in a failing grade. The grade of “I” must be cleared during the first month of the next semester, or the “I” becomes an “F.” The summer session will not be considered a semester in

this case. Students may not enroll in a course in which they currently have an "I." An extension of time due to extenuating circumstances may be authorized by the Dean of Undergraduate Studies upon the recommendation of the instructor. The removal of the Incomplete is the responsibility of the student.

Should a student fail to complete a semester or summer session for any reason, the grade in each course in which the student is then enrolled shall be "F," "I," or "W" as determined by the individual faculty member in consultation with the Dean of Undergraduate Studies.

No numerical symbol, bracket, or percentage is assigned the equivalent of any grade. Arbitrary distribution of grades according to some formula or curve is not permitted. However, by means of departmental supervision and consultation between instructors, every effort is made to obtain consistent grading standards within the department.

Students are expected to use proper grammar in all their course work, whether written or oral. Proper usage is expected at the college-level and is required by all professors.

**Any change of grade deemed necessary by the faculty member concerned must be made within one month after the beginning of the next semester following the recording of the grade. A grade will not normally be changed after one month into the semester after it was awarded. The summer session will not be considered a semester in this case. After grades in a course have been submitted to the Registrar's Office, a change of grade will be considered only in cases of instructor error and must be approved by the head of the academic department involved and the Dean of Undergraduate Studies.**

Grade reports are provided at the end of each semester and summer session. Midterm progress reports are made available to show the status of the student's academic work for the fall and spring semesters.

## Grade-Point Ratio Computation

For purposes of ascertaining a grade-point ratio, grades are weighted as follows:

| **Grade** | **Quality-Points Per Semester Hour** |
|---|---|
| A | 4 |
| B | 3 |
| C | 2 |
| D | 1 |
| F, I, W | 0 |

The grade-point ratio for any semester is determined by dividing the total number of quality points or grade points earned by the total number of hours for which the following grades were received: A, B, C, D, or F.

The cumulative grade-point ratio on which graduation, academic probation, and academic discharge are based is determined by dividing the number of quality points earned at The Citadel by the number of quality hours attempted at The Citadel. The number of quality hours for this purpose includes *all credit hours attempted* at The Citadel for which the following grades were received: A, B, C, D, or F. The number of quality points earned includes *all* quality points associated with quality hours earned at The Citadel. The Citadel does not recognize plus and minus grades in undergraduate courses.

## Taking or Repeating Courses to Improve the GPR

A student may not take a course which is taught at a lower level than or serves as a prerequisite for a course which the student has already completed.

Courses may be repeated under the following conditions:

1. Once passed, no course may be repeated for credit more than once.
2. Prior approval of the faculty advisor is required when a course is repeated.
3. No course may be repeated once a grade of "B" or higher has been earned.
4. Both the department head and the faculty advisor must approve the repeating of a course which is required in the student's major. No 100- or 200-level course required in the student's major may be repeated after it has been used as a prerequisite for other courses taken within the major.
5. For courses in which a grade of "C" or higher is required, the passing grade is considered to be "C." Therefore, these courses may be repeated until a grade of "C" is earned and then may be repeated only once more to improve the GPR.
6. If a course is repeated, the last grade of record is used to determine whether course requirements for graduation have been met.
7. If a previously passed course is repeated, the hours may be used only once toward meeting requirements for hours passed.
8. Grades from repeated courses are included in the student's grade-point ratio.

## Transfer Credits

Normally, only courses which are comparable in content and credit hours to specific courses offered by The Citadel and in which grades of "C" or better have been earned at an accredited institution will be considered for transfer. However, the Designated Dean for the department in which the student is majoring may accept for transfer to meet General Elective credits courses that are not offered by The Citadel but which are considered to be worthy of credit as electives and in which grades of "C" or higher have been earned. The respective department heads have responsibility for considering all transfer courses that are comparable to courses offered by The Citadel. *Course work taken at another college and accepted for transfer by The Citadel need not be applicable to a student's major.* Courses transferred from another college will not be noted in the student's grade-point ratio at The Citadel. All transcripts sent from another college to The Citadel become the property of The Citadel and cannot be issued to the student or a third party.

To ensure that courses taken away from The Citadel will be accepted for transfer, students *must* obtain written, prior approval through the Office of the Registrar. Courses previously passed at The Citadel will not be accepted for transfer.

Cadets who have been given Academic or Conduct Discharges from The Citadel or who leave The Citadel while their conduct status is in question may not enroll in courses at The Citadel during that period of discharge nor may they transfer back to The Citadel courses taken during that period of discharge. Cadets who have resigned in lieu of a conduct discharge may not transfer any courses to The Citadel. Cadets who have resigned or been discharged for reasons other than academics or conduct may transfer back to The Citadel courses taken during that period of discharge, but the number of such transfers is limited to no more than four (4) courses.

*All transfer credits are provisional. If a department determines within a reasonable period of time after classes begin that the student is not prepared to take a course for which the course transferred is a prerequisite, the allowance of credit is withdrawn, and the student must take the prerequisite course at The Citadel.*

A cadet who is currently enrolled in the Corps of Cadets may not take a course offered at another institution or in a course offered through the College of Graduate and Professional Studies.

## Catalog of Record

The catalog bearing the number of the academic year in which cadets enter The Citadel will be their catalog of record for matters of academic policy.

When cadets are readmitted after an absence of at least three academic semesters (summer sessions will not be considered as semesters for this purpose), the catalog bearing the number of the academic year in which the students are readmitted will be their catalog of record for matters of academic policy and graduation requirements.

## Degrees

The degree of Bachelor of Arts is conferred upon satisfactory completion of the appropriate chemistry, criminal justice, English, French, German, history, mathematics, political science, psychology, or Spanish program of study. The Bachelor of Science is conferred upon satisfactory completion of the appropriate biology, chemistry, computer science, education, mathematics, physical education, or physics program of study.

The degree of Bachelor of Science in Business Administration is awarded to students who complete satisfactorily the program in business administration.

Graduates in civil engineering receive the degree of Bachelor of Science in Civil Engineering. Graduates in electrical engineering receive the degree of Bachelor of Science in Electrical Engineering.

## Academic Requirements for Graduation

For graduation, a student must complete one of the departmental major courses of study stated in the catalogue of record and must achieve a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned at The Citadel. In addition, each student, regardless of major, must achieve a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned in major course work at The Citadel.

For students majoring in education or the teaching track of physical education, an overall grade-point ratio of 2.500 is required. In addition, students in these majors must achieve a minimum grade-point ratio of 2.500 based on all quality hours attempted and all quality points earned in major course work taken at The Citadel. Students in these majors must also earn a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned in teaching field course work taken at The Citadel.

If a student is pursuing a minor, a grade-point ratio of 2.000 must be achieved in all course work required for that minor.

To be eligible for graduation, all students, including transfer students from other colleges, are required to earn at The Citadel a minimum of one-half the semester hours prescribed for their major course of study.

To ensure that the work in the major is current, a cadet must complete at least 30 of the final 37 credit hours within five (5) years of meeting degree requirements. Cadets who have met overall grade-point ratio, major course work grade-point ratio requirements, and teaching field grade-point ratio requirements and who are conduct proficient but who have not completed all course requirements for graduation may take not more than two courses totaling 7 semester hours at another institution for transfer to The Citadel in order to complete degree requirements. Prior approval of these courses by the department head concerned is mandatory.

In addition to the formal academic credits required for graduation, the candidate must have satisfied all disciplinary requirements. Recommendations for graduation are made by the Academic Board to the Board of Visitors, which in turn awards appropriate degrees.

## Cadet Requirements for Graduation

A cadet must be Conduct and Physically Proficient at the time of commencement. A cadet who incurs punishment that would extend beyond commencement or who fails to complete physical fitness requirements successfully will not be permitted to graduate until such punishments have been served or otherwise disposed of and physical fitness requirements have been completed to the satisfaction of the Commandant of Cadets, with the approval of the President.

## Combining Courses

Courses may be combined to meet *elective credit* requirements under the following circumstances:

1. Each course to be combined (a lecture course, or a lecture and its associated laboratory) must carry at least 3 hours credit.
2. The courses to be combined must all be offered by the same department.
3. Prior approval of the head of the department in which the student is majoring and the Dean of Undergraduate Studies must be obtained.
4. Only elective courses can be combined.

## Course Substitutions

The requirements for completion of an academic major are shown in this catalogue as a *minimum number of courses* and the associated credit hours. Each course has been carefully selected by the academic department offering the major. Course substitutions are, therefore, made only when justified by extenuating circumstances. Such circumstances must be presented in writing by the student, and the requested substitution must have the support of the faculty advisor, the department head, and the Dean of Undergraduate Studies. Forms for requesting course substitutions are available in the Registrar's Office.

## ROTC Graduation Requirements

All cadets must be enrolled in and successfully complete an ROTC course every semester during which they are enrolled at The Citadel or until they have completed eight semesters. Voluntary withdrawal from or failure to register for ROTC courses is not permitted. If there are extenuating circumstances beyond their control, cadets may withdraw or not register for ROTC provided they has the support of the head of his ROTC department and the approval of their faculty advisor and the Dean of Undergraduate Studies. The cadets must, however, make up the ROTC courses missed in order to graduate.

Upon the recommendation of the head of the appropriate ROTC department and with concurrence of the Dean of Undergraduate Studies, training experiences may be accepted in lieu of ROTC course work. When approved, the designated ROTC courses will be recorded on the student's Citadel transcript as if they had been completed at The Citadel on a Pass/Fail basis.

**ROTC classes may not be used to satisfy elective requirements in any course of study.**

### Non-cadet Enrollment in ROTC

Noncadets are not permitted to enroll in ROTC classes except under the following conditions:

1. The individual must be on active duty and on orders as a participant in a commissioning program for one of the armed services.
2. The individual must be accepted as a degree-seeking student in the day program of The Citadel.
3. The individual must be enrolled as a full-time student in courses in the day program of The Citadel.
4. The individual must be provided leadership experiences outside the context of the Corps of Cadets.
5. ROTC classes will fulfill no degree requirements in a degree program of a non-cadet.
6. The individual must be in uniform while on campus.

### Course Load Requirements

A full-time student must be enrolled throughout each semester in course work with credits totaling at least 12 credit hours. A cadet must be a full-time student. Any cadet who drops below the 12 credit hour minimum at any time during a semester is subject to discharge, unless there are extremely extenuating circumstances. Such circumstances must be presented in writing to the Dean of Undergraduate Studies. Students and their parents should be aware that carrying fewer than 12 credit hours may affect insurance coverage with some insurance companies and financial aid.

### Course Overload

Outlines for the various academic majors are detailed in the "Courses of Study" section of this catalog. Course selections for each semester have been carefully determined by each individual academic department on the basis of sequence and content. Following a particular course of study will ensure normal progress toward completion of minimum degree requirements within eight semesters.

For a variety of reasons, a student may find it desirable to take an additional, or overload, course during a particular semester. An overload course is defined to be any course taken in addition to those prescribed in the student's course of study for the semester in question. An Overload Request Form must be completed by the cadet and approved by the faculty adviser and the department head.

During the first two weeks of each semester, the Office of the Dean of

Undergraduate Studies will check the academic records of all students taking overload courses. If the academic records of these students do not indicate that they are able to handle the additional course load, the students will be required to withdraw from the overload courses.

### Pass-Fail

Juniors and seniors with cumulative grade-point ratios of 2.00 or higher may elect to take elective courses on a Pass-Fail option. Normally no more than one course may be taken under this option each semester, and no more than four courses taken under this option may be used to meet graduation requirements. Students may take the Pass-Fail option only on courses which meet elective requirements. Students may not change their decision to take a course on the Pass-Fail basis after the first two weeks of the term. Courses completed on the Pass-Fail option carry graduation credit, but no quality points are awarded, and such courses are not included in GPR computations.

Instructors report grades as usual, A through F. The Registrar's Office translates grades as follows:

1. The grades of "A" through "C" as "S" (satisfactory, pass—for credit);
2. The grades of "D" or "F" as "U" (unsatisfactory, fail—no credit).

Cadets who are taking a course under the Pass-Fail option and who wish to be considered for Dean's List or Gold Star honors must meet the following criteria:

1. The appropriate GPR requirement must be met on 12 or more semester hours beyond the Pass-Fail course;
2. The Pass-Fail course must be completed satisfactorily.

In determining the GPR for the position of First Honor Graduate, courses taken under the Pass-Fail option will be included.

When a student is documented as having a learning disability that warrants substitutions for courses required in a particular academic discipline, all courses previously completed unsuccessfully in that discipline will be considered as having been taken under the Pass-Fail option.

Students desiring to take a course on the Pass-Fail option should contact the Registrar's Office.

### Audit Status

Any student who is eligible to enroll in a particular course may, with the approval of the instructor and the Registrar, audit that course for no credit. There will be no additional charge if the student is enrolled for credit in courses totaling 12 or more hours. For students taking fewer than 12 credit hours, registration fees and 100 percent of the tuition for the course will be assessed. The student may not change the decision to take the course on the audit basis rather than for credit after the first two weeks of the term. Grades will not be given for courses taken in audit status.

## Class Attendance Policy

The cornerstone of undergraduate education is communication between the teacher and the student. At The Citadel, class attendance is expected, and students are expected to be punctual. From reveille at 0645 until taps at 2400, the cadet's day is quite full. However, during these periods Monday through Friday, less than 20% of the time is designated for classes and laboratories, and these experiences are not to be missed. Therefore, except as indicated below, class attendance is *mandatory.*

Although class attendance is of higher priority than other normal activities, it is acknowledged that cadets must miss classes for certain authorized reasons—athletic events and connected travel, special events and ceremonies, daily and special guard duties, and the like. Certain medical and personal emergencies will require the missing of scheduled classes. **Should it be necessary to miss a class for any reason, the student will, unless circumstances preclude it, notify the professor in advance and will be responsible for any material missed. Assigned tests are *mandatory*. Unless authorized to the contrary by the professor, such tests take precedence over *all* other duties or activities.**

Should a class or a laboratory be missed for unauthorized reasons, the cadet will be required to serve a prescribed punishment.

For any student, absences, whether authorized or unauthorized, in excess of 20% of the meetings of a particular course can, at the discretion of the professor, result in a grade of "F" in that course. In such cases, the attendance record kept by the professor is official.

As soon as the instructor has determined that a grade of "F" for excessive absences is warranted, the Dean of Undergraduate Studies is notified, and the student is dropped from the course in question. If as a result of this action the total hours carried by a full-time student drop below 12 credit hours, the student is subject to immediate discharge from the college unless there are extenuating circumstances. Such circumstances must be presented in writing to the Dean of Undergraduate Studies.

## Academic Criteria for Continuance

In order to be eligible to continue at The Citadel, a student must meet minimum standards regarding hours earned at The Citadel or properly transferred from another accredited institution and cumulative grade-point ratio maintained.

These criteria are assessed initially after the cadet's second semester at The Citadel and then at the end of each two-semester period.

Credits earned through AP or CLEP prior to the academic year in question or course work taken by an entering freshman in the summer prior to initial matriculation may not be used toward meeting the minimum standard regarding hours earned in an academic year. Although The Citadel will notify students who are deficient in either or both areas, it is the responsibility of the student to ensure that these criteria are met. To avoid academic discharge, a student must meet *both* hour and GPR requirements concurrently either at the end of the fall semester, at the end of the spring semester, or in August, as appropriate.

A full-time student (one carrying at least 12 credit hours each semester) must pass at least 24 semester hours in each 12-month period after admission or readmission. **If a previously passed course is repeated, the hours may be used only once toward meeting requirements for hours passed.**

Each student must maintain a minimum cumulative grade-point ratio as prescribed in the table below. This grade-point ratio is calculated as described earlier in this section.

The column "Quality Hours Plus Transfer Hours" includes 1) all credits attempted for which a grade of "A," "B," "C," "D," or "F" was received at The Citadel, 2) course work transferred from other colleges, and 3) courses taken Pass-Fail.

| Quality Hours Plus Transfer & Pass/Fail Hours | Grade-Point Ratio for Continuance (on probation) | Grade Point Ratio for Continuance (without probation) |
|---|---|---|
| 0-39 | 1.100 | 1.300 |
| 40-69 | 1.400 | 1.600 |
| 70-99 | 1.700 | 1.800 |
| 100 & above | 1.900 | 2.000 |

This table traces the minimum academic progress a student must make to continue at the College and to avoid academic probation. For the purpose of determining academic probation, criteria for continuance, dean's list, gold stars, graduation, and other academic matters, grade-point ratios will not be rounded.

### Academic Discharge

**A cadet's academic record will be subject to formal review for purposes of academic discharge at the end of the second semester after initial matriculation at The Citadel. During these two semesters and the summer sessions after initial matriculation, the cadet must have earned at least 24 credit hours and must at the time of review meet GPR requirements for continuance. If both these requirements are not met concurrently at that time, the cadet will be discharged for academic deficiencies.**

Academic probation is assessed each semester, and after the initial review described above, academic assessment for the purpose of academic discharge is conducted at the end of each two-semester period, and the associated summer sessions, after the student is admitted or readmitted. Under the academic discharge policy, cadets may be discharged for academic deficiencies in January or in August of each year.

Summer session work cannot make students ineligible to enroll in the following fall semester, if they were eligible for enrollment at the end of the previous spring semester. However, to avoid academic discharge, a student must meet both hour and GPR requirements concurrently either at the end of the fall semester, at the end of the spring semester, or in August, as appropriate.

Students who voluntarily withdraw at times other than January or August or who are discharged for other than academic reasons will have the academic status of their discharges assessed upon application for readmission.

Minimum grade-point ratios for the various categories are as shown in the previous section; however, the minimum GPR required will not be raised as a result of summer school work. That is, students moving from one category to the next higher category as a result of credit hours earned in summer school at The Citadel or elsewhere will be required to meet the GPR minimum of the lower category of credit hours for continuance in the following fall term.

A student who is discharged for academic reasons for the first time may apply for readmission after being out of school for one semester. Summer school does not constitute a semester in this instance. If approved for readmission, the student will be readmitted on academic probation.

**If a student fails for a second time to meet minimum academic criteria for continuance, the Dean of Undergraduate Studies will review the academic record and any extenuating circumstances the student wishes to present in writing. Based on this review and in consultation with the faculty advisor and the department head, the Dean of Undergraduate Studies will determine the conditions under which the student will be permitted to continue or will award the student a second academic discharge. A student discharged a second time for academic reasons will not normally be considered for readmission and may not enroll in course work in any program at The Citadel—day, evening, or summer. Under extremely extenuating circumstances, a student who is no longer eligible to return to the Corps of Cadets may be considered for admission to the College of Graduate and Professional Studies.**

## Academic Probation

A student is placed on academic probation for any semester when the cumulative grade-point ratio based on courses taken at The Citadel fails to meet the requirements for continuance without probation as outlined in the Academic Criteria for Continuance table. A student will be removed from academic probation after the semester the cumulative grade-point ratio meets the requirements of the table.

Several academic departments have established criteria which must be met by their majors. Students not meeting these criteria are placed on probation within that department. This status is not related to and does not affect the academic probation which is awarded by the college. Where departmental probation has been established, a full explanation is provided within the section of this catalog which describes that major.

Cadets on academic probation are required to participate in the Supplemental Study Periods Program.

## Supplemental Study Periods Program

Supplemental study periods (SSPs) are established to provide *opportunities for academic improvement* for four groups of cadets: (a) those on Academic Probation, (b) those who have failed more than four credit hours on the most recent grade report (mid-term or end-of-semester), (c) those whose term GPR is below 2.000, and (d) other cadets as designated by the Dean of Undergraduate Studies. Cadets in these categories will be required to log four extra hours of study time each weekend by choosing any *two* of these two-hour blocks for their extra study time.

| *Friday* | *Saturday* | *Sunday* |
|---|---|---|
| 1900-2100 | 1300-1500 | 1300-1500 |
| | 1600-1800 | 1600-1800 |
| | 1900-2100 | |

During the time blocks which the cadets have selected, they will be in their rooms studying. Individual companies (i.e., the company academic officers) have the authority to make minor modifications to this general policy to suit particular circumstances which may arise within their companies. There are, however, limits to the flexibility of these guidelines. In no case shall a cadet be required to log more than four extra study hours, and in no case shall the assignment to SSP cancel weekend or overnight leave privileges to which the student might otherwise be entitled.

The responsibility for supervision of this program within each company will be determined by that company's academic officer. For instance, the officers, the first sergeant, and the academic sergeant may rotate supervisory responsibilities over the weekend. Supervisory duty consists of maintaining a sign-in/sign-out sheet with the roster of cadets assigned to SSP each weekend and being available to help SSP participants find assistance with their academic work should they desire it.

## Withdrawals

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return to The Citadel in August following any college year, a written request for an honorable discharge must be sent to the Registrar.

## Conduct Discharge

A cadet who has been expelled from The Citadel is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer. Cadets who have been suspended or dismissed or who leave the College with a disciplinary board pending are not eligible to attend any undergraduate class at The Citadel—day, evening, or summer—or to transfer credits back to The Citadel until they have been accepted for readmission to the College.

## Readmission Policy

Cadets wishing to return to the day program of The Citadel after they have been discharged must file an application for readmission with the Registrar. The deadline for receipt of an application for readmission for the spring term is October 1 and for the fall term is June 1. Applications postmarked after these dates will not normally be processed.

Cadets who are discharged due to academic deficiencies will be ineligible to apply for readmission until the lapse of one semester, either fall or spring. (Neither of the two summer sessions is considered a semester in this instance.)

A cadet discharged a second time for academic reasons may not enroll in course work in any program at The Citadel — day, evening, or summer — and will not be considered for readmission unless extremely extenuating circumstances can be presented.

## Academic Classifications

Academic classifications of 4A (first semester freshman) through 2B (second semester junior) are based on hours earned and cumulative GPR. For example, to be classified 2A (first semester junior), the cadet's total hours earned must be no less than 8 less than the total hours required through the spring semester of the sophomore year of the major course of study.

To be academically eligible to be classified as a first semester senior (1A), a cadet must have earned a sufficient number of hours to be no more than 8 hours short of the number of hours required in the major course of study through the spring semester of the junior year and must have completed the following Core Curriculum course work:

Four semesters of English
Two semesters of mathematics
History 103 and 104

One year of the same language
Two semesters of the same science.

Academic classification is used by the Office of Financial Aid for such things as loan eligibility and by the Commandant's Office to determine room assignments, the appropriate class numeral, and class privileges.

### Academic Probation

Cadets must meet GPR requirements for their total hours earned as presented in this catalog. Those who do not meet GPR requirements will be placed on Academic Probation and will not be eligible for class privileges.

### Class Privileges

Cadets may be considered only for the privileges awarded to those with their Academic Classifications. To be eligible to receive class privileges, a cadet must not be on Academic Probation and must be both Conduct and Physically Proficient.

### Ordering the Cadet Ring

Ordering the cadet ring is based on hours earned and applied toward degree requirements and not just on hours earned. To be eligible to order a cadet ring, the cadet must meet the following requirements:

1. Be classified 1A
2. Have a cummulative GPR of at least 2.00
3. Be no more than 8 hours behind the fall semester of the senior year of the major course of study.

**No exceptions will be made to these requirements.**

### Fifth-Year Student Status

**No civilian students are permitted to take classes with the Corps of Cadets.**

Cadets will normally remain in the Corps of Cadets until degree requirements have been met. An exception to this policy may be considered under the following conditions, but under no conditions will a cadet who has not completed eight semesters in the Corps of Cadets be permitted to complete cadet degree requirements at The Citadel in a non-cadet status.

1. Cadets who are Conduct and Physically Proficient, who need 7 or fewer credit hours to complete degree requirements, and whose cumulative, major, minor, and teaching field Grade Point Ratios are at least 2.00 (2.5 where appropriate) may request permission to complete cadet degree requirements by transferring the remaining hours back to The Citadel from an accredited institution. All transfer courses must have prior approval, and final grades of "C" or higher must be received by The Citadel Registrar's

office within a calendar year of approval.

2. Cadets who are Academically, Conduct, and Physically Proficient; who have completed eight semesters in the Corps of Cadets and eight semester of ROTC; and who can present a plan for meeting degree requirements in no more than one calendar year through The Citadel's College of Graduate and Professional Studies and Summer School, may request a transfer to the College of Graduate and Professional Studies to complete cadet degree requirements. This plan must be presented in writing to the Dean of Undergraduate Studies and may include course work from other area colleges only if these courses are to be taken during summer school, the College of Charleston Maymester, or Charleston Southern University Inter-term.

## The Citadel College of Graduate and Professional Studies

Students who are in cadet status and are currently enrolled in the Corps of Cadets are not eligible to enroll in courses offered in the College of Graduate and Professional Studies or in any other institution. Students who are in cadet status and are not currently enrolled in the Corps of Cadets, but who have not been given a conduct or academic discharge, may, with the prior approval of the Dean of Undergraduate Studies, take a limited number of credits in the College of Graduate and Professional Studies.

## The Citadel Summer School

In summer programs, a student may enroll at The Citadel or transfer from an accredited institution no more than four courses and the associated labs, totalling no more than 14 credit hours.

Two day summer sessions and one evening summer session are conducted at The Citadel for students who wish to accelerate their work or address academic problems. The same fees are charged to both South Carolina and out-of-state students. All fees are due and payable at the time of registration unless prior arrangements have been made with the Treasurer. Bills for summer sessions will not be mailed by the Treasurer. There will be no refunds of tuition after the first week of each session. During the summer session all purchases of books and supplies will be on a cash basis.

A cadet who has been expelled from The Citadel is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer. A cadet who has been suspended or dismissed or who has a disciplinary board pending is not eligible to attend any undergraduate class at The Citadel—day, evening, or summer—until readmission to the College has been approved.

Details of the summer school program are available through the Summer School Bulletin, which can be obtained from the College of Graduate and Professional Studies or the Registrar's Office.

## Change of Academic Major

A student may not change from one academic major to another without written approval. Forms for requesting a change of academic major are available in the Registrar's Office. Because both entrance and exit requirements differ among the various academic majors, students who are considering a change of major are required to consult with their academic advisors as well as the heads of both the gaining and losing academic departments.

## Requirements for an Academic Minor

A minor is defined to be a curricular component which enables a student to make an inquiry into a single discipline or field of study, or to investigate a particular topic across the boundaries of two or more disciplines. In either case, the minor is not simply a specified number of credit hours, but a well-defined course of study. The minor within a single discipline or field of study must demonstrate that it leads the student to some understanding of that discipline or field of study and to some degree of competence with its methods of inquiry. The interdisciplinary minor must demonstrate how it will help the student come to some understanding of the answers to the questions upon which it is focused.

A minor complements the student's major and does not simply expand it with more courses in the same field. For this reason, students may not ordinarily pursue both a major and minor in the same discipline. However, in the case where a discrete topical minor is administered by the student's major department, an exception may be in order.

A minor consists of an ordered series of courses totalling at least 15 credit hours, at least 12 of which must be beyond Core Curriculum or major requirements and at least 6 of which must be at the 300/400 level. At least 9 hours of the minor must be organized in a logical sequence of required courses which provides general direction for the student's study.

For minors in a single discipline or field of study, the department offering that discipline or field of study is responsible for formulating the requirements of the minor, presenting the minor to the college, and, if it is approved, continuing assessment of the minor. For an interdisciplinary minor, a lead department is designated which is responsible for coordinating the formulation of the minor requirements and coordinating the continuing assessment of the minor.

A student who meets all requirements for an approved minor will have both the major and minor indicated on the transcript. Requirements for each minor are presented in the academic department sections of this catalog. The student must earn a grade-point ratio of at least 2.00 on all course work required by the minor.

## Pursuing A Double Major

Under certain circumstances, a student may wish to pursue two different majors concurrently within the *same* baccalaureate degree. This will be recognized under the following conditions:

1. Students must declare their intentions to the Registrar no later than the fall semester of the junior year.
2. Both majors must be offered under the same baccalaureate degree.
3. Students must complete all requirements for each major.
4. Students, in addition to meeting a minimum overall grade-point ratio, must achieve a minimum grade-point ratio of 2.000 based on all credit hours and all quality points earned in course work taken in *each* major.

A student who has met these requirements will have both majors indicated on the transcript. A student desiring to pursue a double major should contact the Registrar's Office to complete appropriate paperwork.

### Pursuing A Second Baccalaureate Degree

Under certain circumstances, a student may wish to pursue two *different* baccalaureate degrees concurrently. This will be allowed under the following conditions:

1. The student must complete all requirements of each degree.
2. The student must complete a minimum of 30 hours beyond the initial degree.
3. The student is normally expected to complete requirements for the second degree while pursuing the initial undergraduate degree.
4. Any remaining requirements after the initial degree has been completed must be addressed in the College of Graduate and Professional Studies.

### Graduate Courses

Cadets are not permitted to enroll in graduate courses during the fall or spring semester.

### ROTC Commissioning Requirements

Although cadets are required to enroll in ROTC during every semester they are enrolled at The Citadel or until they have completed eight semesters, they are not required to accept, nor are they guaranteed to be offered, a commission in one of the Armed Forces.

A cadet pursuing a commission through an ROTC program must complete the entire ROTC program of the applicable service or that portion specified by the commanding officer of the ROTC unit concerned.

### Transfer Between ROTC Programs

A cadet may not transfer between ROTC programs without written approval. Applications for transfer must be submitted on forms available from the Registrar's Office. All students must consult with both the losing and gaining ROTC commanding officers to ascertain the effect of the proposed transfer. After the sophomore year, cadets will not be permitted to change ROTC programs unless they will pursue a commission in the new ROTC program.

A transfer between ROTC programs will not reduce the number of ROTC semesters required for graduation, nor may more than 16 credit hours be applied toward completion of graduation requirements.

## Student Grievances

Students who feel that they have an academic grievance or who wish to appeal an academic policy or action are directed first to confer with the instructor or other individual(s) involved. Where this does not result in satisfaction, the student will contact the appropriate academic department head. If the matter remains unresolved, the student may state the appeal or grievance in writing to either the Dean of the College of Graduate and Professional Studies or the Dean of Undergraduate Studies, as appropriate. The Dean shall review the case and determine whether there are sufficient grounds to warrant an official hearing. In that case, the Dean shall appoint a hearing board, chaired by a faculty member, with further membership constituted by two additional faculty and a student in good standing from the same student category as the appellant. This board shall have the authority to hear witnesses, request testimony, and study records and materials. The board shall forward its findings and recommendations to the convening Dean, who shall decide the case. The student may appeal that decision to the Graduate Council or the Academic Board, as appropriate. The Decision of these bodies shall be final.

## English Fluency Policy

In accordance with the laws of South Carolina, The Citadel ensures the English fluency of its teaching faculty through a two-stage review process.

1. During the interview process, each applicant will make an oral presentation before a group consisting of faculty members and students. Using the included form, each participant will evaluate the candidate's English fluency and clarity of presentation. These evaluations will be a major factor in the selection process, and should a candidate who is ultimately selected be deemed by this evaluation to have a language problem, the extent of this problem, the support to be provided the candidate by the College in addressing this problem, and the expectations for improvement in English fluency will all be clearly stated in the offer of employment.
2. Should the English fluency of a member of the faculty be challenged by a student, standard procedures for student academic grievances as described above will be followed. Under these procedures, the student first confers directly with the faculty member involved. Where this does not result in satisfaction, the student contacts the appropriate academic department head. If the matter remains unresolved, the student may state the grievance in writing to the designated dean. The dean reviews the case and

determines whether there are sufficient grounds to warrant an official hearing. In that case, the dean appoints a hearing board, chaired by a faculty member with further membership constituted by two additional faculty members (for grievances related to English fluency, the native language of one of the faculty members will not be English) and a student in good standing from the same student category as the student filing the grievance. This board has the authority to hear witnesses, request testimony, and study records and materials. In the case where the grievance relates to English fluency, the board will, as a group or individually, attend a lecture given by the faculty member in question and evaluate that lecture. The board forwards its findings and recommendations through the convening dean to the Vice President for Academic Affairs/Dean of the College, who shall decide the case. The student may appeal that decision to the Graduate Council or the Academic Board, as appropriate, and the decisions of those bodies are final.

## Confidentiality of Student Records

The Citadel maintains and discloses information from student records in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974 (FERPA). This law requires that educational institutions maintain the confidentiality of student educational records. The Citadel accords all rights under the law.

No one outside of The Citadel shall have access to nor will the institution disclose any information from a student's educational records without the written consent of the student except in compliance with the provisions of Federal and State law. Such disclosure may include disclosure to personnel within the institution, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, or, in an emergency, to persons in order to protect the health or safety of the student or others.

Within The Citadel community, only those members, individually or collectively, acting in the student's educational interests are allowed access to student educational records. These members include Faculty and personnel in the Offices of the President, Vice President for Academic Affairs and Dean of the College, Vice President for Finance and Business Affairs, Dean of Enrollment Management, and Commandant.

Directory information about a student may be disclosed at the discretion of The Citadel without the consent of the student unless the student has notified the Registrar within two weeks of the beginning of the academic year (fall semester) that the student refuses to allow the disclosure of such information. Notice to maintain directory information as confidential must be given at the beginning of each academic year, and is valid only for that year; therefore, any student desiring to keep directory information confidential must file a notice of such each year.

Directory information includes student name, local and permanent address and telephone number, date and place of birth, major field of study, Dean's List and Gold Star List, ROTC branch, dates of acceptance and attendance, years in school, anticipated date of graduation, degrees and awards received, graduation honors, academic and military awards, the most recent previous educational agency or institution attended by the student, cadet company and rank, participation in officially recognized activities and sports, weight and height of members of athletic teams, U.S. citizenship, extracurricular activities, and residency status.

A copy of the Family Educational Rights and Privacy Act of 1974 and details of The Citadel policy on maintaining and disclosing student records may be obtained in the Office of the Registrar.

# CADET LIFE

The Citadel takes pride in educating the "Whole Person"—mind, body, and spirit—, and the cadet lifestyle is an important aspect of this educational process. From the freshman year until graduation, numerous opportunities and challenges are afforded cadets both within the cadet companies and through the many cadet organizations on campus. The Citadel's faculty, staff, and facilities are dedicated to ensuring the well-being of its students and to providing a stimulating environment which is conducive to their personal growth.

## Student Advisory Services

*Academic Faculty Advisor.* Each student is assigned a faculty advisor who provides counsel concerning course selections and options within particular courses of study. Though students are encouraged to visit their advisors throughout the academic year, formal planning sessions are designated each semester during preregistration and registration.

*Tactical Officer.* Each cadet company is assigned a staff member or an active duty officer who is currently serving one of the ROTC detachments at The Citadel. This officer provides counsel concerning matters of cadet lifestyle and regulations and provides leadership training in cadet company areas and while supervising drill periods.

*Company Academic Advisor.* Each cadet company is assigned a specially chosen member of the faculty or staff who works closely with the company tactical officer and the cadet chain-of-command to ensure that academic and military requirements are compatible and that cadets take advantage of academic opportunities available to them on the campus.

*Counseling Center.* The Citadel Counseling Center provides students with professional and confidential counseling services. Personal, educational, and career counseling services are available by appointment.

The Citadel Counseling Center also administers and interprets intelligence tests, personality inventories, and interest inventories. The center is a Controlled Testing Center for the Psychological Corporation and administers specialized group tests such as the Miller Analogies Test (MAT).

Appointments may be made directly by the students or by referral from others such as professors, faculty advisors, chaplains, tactical officers, the infirmary staff, cadet officers, or friends.

*Pastoral Counseling.* Pastoral counseling is an important component in the overall design of The Citadel's advisory program. Campus ministers are available to establish with students an ongoing pastoral relationship that includes dealing with life problems in the context of religious values. Realizing our varied personal limits, there are occasions when referrals will be made. However, among the chaplains, you are assured of care, concern, and confidentiality, whatever your situation.

*Substance Abuse Counseling.* The Citadel Substance Awareness Program offers assistance to students in the areas of alcohol and other drug counseling, education, information, and prevention. This is done using a variety of resources including peer educators, faculty and staff educators, the On Campus Talking About Alcohol (OCTAA) classes, and individual counseling.

The OCTAA program is designed to aid individuals in examining their own choices about alcohol and other drugs and provides information on how to reduce the risk for developing a problem. Peer, faculty, staff, or self referrals may be made to the Substance Awareness Program located in Thompson Hall.

*Prelaw and Premedical Advising Services.* The Citadel provides counseling and guidance to all students who have an interest in attending law or medical school after graduation. Students interested in a law career should seek advice early in their college careers from the chair of the Prelaw Advisory Committee. Students interested in medicine and related fields should seek early advice from the chair of the Premedical Advisory Committee. Each committee is composed of faculty members from academic disciplines related to these professional fields.

*Services for Learning Disabled Students.* The Citadel offers support services to students with disabilities. The goal of the Academic Support Services Program is to assist students in becoming efficient and independent learners. The Academic Support Services Office is located at 206 Thompson Hall, and students should contact this office to discuss their needs.

*Career Planning and Placement Services.* The Citadel Career Services Office has a primary mission of preparing members of the graduating class to secure permanent employment in their chosen career fields.

The Career Services Office provides group and individualized assistance. Students and alumni receive instruction in the production of academic and professional portfolios. Guidance is provided in the preparation and use of resumes and letters of introduction. Individual counseling and workshops are provided regarding interviewing skills, career, industry, and firm research, Internet-related resource use, business etiquette, negotiating, and decision-making. Individual career strategies are developed for students and alumni. Reference materials are available, including company profiles and recruiting literature, salary surveys, interviewing guides, sample portfolios and resumes. The office arranges on-campus interviews, assists students in arranging off-campus interviews, sponsors on-campus career fairs, and assists students in participation in off-campus career fairs. The office also assists students in identifying summer employment opportunities. Alumni conducting employment searches are welcome to use all resources, to include the resume referral service. The Career Services Office works in cooperation with academic departments, the counseling center, the writing center and the library to assist students in developing and realizing their career potential. All students are invited to use the resources of the Career Services Office which is located at 573 Huger Street, near the Alumni House.

## Instructional Support Facilities

*The Daniel Library.* The primary mission of the Daniel Library is to provide the resources, services, and library environment that support the teaching and research requirements of the college. The library works to facilitate students' ability to learn and to conduct effective research and information gathering as it relates to their studies and research at The Citadel and their lives beyond college as contributing members of society. This role calls for strengthening the liberal arts and professional education of students by developing their intellectual skills and independence through the library's various collections, reference expertise, and services such as online data base searching and interlibrary loan.

The Daniel Library collection consists of nearly 316,000 volumes, 1400 journal subscriptions, and 800 video tapes. The Citadel library is a federal document depository library with more than 100,000 documents accessible through the online catalog. Daniel Library is fully automated and part of the campus local area network (LAN), providing in-library or remote access to all electronic resources. From the Library's World Wide Web home page, users may access (from the library, the computer labs, or personal computers) twenty-three electronic periodical indexes, plus many of the sixty databases available via OCLC FirstSearch, supporting all disciplines; The Citadel's online catalog; catalogs of libraries all over the world; periodical holdings of all Charleston area libraries; electronic journals and newspapers; and may request books and articles from other libraries. To complement library holdings, full access to online services such as Dialog, BRS, Wilsonline, and Westlaw is available. Daniel Library is a member of SOLINET/OCLC; RLIN; and Charleston Academic Library Consortium (CALC), a consortium of Charleston area academic, public, and special libraries. Full access to the Internet is available from the library, providing limitless access to information. Interlibrary Loan and Document Delivery service is available to students and faculty at no cost, permitting access to this wealth of information.

To enable students to make the best use of the array of resources and services available to them, the library provides a variety of research instruction classes designed to meet their research and information needs. The Freshman Library Instruction Course is required of all freshmen; teaches students to access and use library resources and services; and provides instruction in utilizing the campus computer network, Coastnet, Internet, and other electronic resources. Course-specific research classes focus on unique information needs of each student and are designed to address specific research requirements of the course.

The library is open 7 days a week for a total of 78 hours. Library faculty and support staff are available to assist users during all operating hours.

*The Citadel Writing Center (Capers Hall 103 and 104).* This center provides academic support services free of charge to students, faculty, and the community. The staff is comprised of professional tutors, graduate and undergraduate students, and full-time personnel. Students may drop in or call for an appointment. Instructors of all courses may refer students to the Writing Center. Consultants offer one-on-one tutorials for across-the-curriculum academic writing projects as well as résumés, business communications, and English as a Second Language tutorials. Writing workshops are scheduled each semester and include topics such as Writing Research Papers and Documentation in APA and MLA formats. Learning Strategies tutorials, workshops, and seminars are available throughout the semester on topics such as Memory and Retention, Stress Management, and Test Preparation. Gateway 2000 computers, laser printers, e-mail, VAX, and World Wide Web access are available for student use. The Writing Center also handles local and national calls for writing assistance through the National Directory of Grammar Hotlines: (803) 953-5305/953-3194.

*Computing Resources.* The Citadel provides its students superior computing resources. All students have ready access to a variety of popular computers, including Apple Macintoshes, IBM-compatible PCs, Digital VAXs, and UNIX RISC workstations. Students are encouraged to bring their own Microsoft Windows-compatible computers.

Students can use the latest versions of leading personal computer software such as Windows-based versions of Microsoft Office (Word, Excel, Powerpoint, Access) WordPerfect, and Netscape Navigator—as well as a wide variety of business, computer programming, engineering, foreign language, mathematics, and natural and social science packages. Computer training and assistance is available to all students.

VAX users can work with several computer language compilers and a variety of mathematics, engineering, and statistical packages. UNIX users can use a number of compilers and interpreters, mathematics and engineering packages, multi-user database management system, and state-of-the-art software development tools.

Every cadet in every barracks room has access to a high-speed network connection to Citnet (The Citadel's campuswide network) and the Internet. Through these networks, students can search library catalogs and reference publications, access computer bulletin boards and conferences, and send electronic mail messages to people throughout the world—all at no cost. The Citadel is one of the first colleges in the Southeast to provide network connections in all student rooms.

The Citadel operates nine general-purpose computer labs that are located in classroom buildings at both ends of campus. In addition, a small computer lab is located in each of the four barracks. Labs are open seven days a week, all are equipped with laser printers, and some have color printers or plotters as well. All of the Macintoshes, IBM-compatibles, and UNIX workstations in these labs use 3.5-inch diskettes, and some have CD-ROM drives. Three multimedia presentation classrooms feature large-screen video projection systems, a sound system, and an instructor's workstation housing a high-end computer and video equipment. The multimedia support center provides assistance with graphics, presentations, video projects, and educational media for students and faculty.

## Religious Activities

College years are exciting times of growth and challenge, when a young person's faith and religious heritage are examined in the light of new experiences and perspectives. While college years may be marked by a "crisis of faith," they frequently are also marked by a deepening commitment to life-long religious values. The Chaplain, who also serves as the Director of Religious Activities, is committed to assisting in that deepening commitment.

Working closely with the Chaplain within the Corps of Cadets are the Cadet Regimental Religious Officer, the Battalion Religious Officers, and the Religious Council. Additionally, a team of campus ministers helps to round out the religious program. Nine part-time campus ministers and five parachurch leaders coordinate their ministries with the Director of Religious Activities. Denominational meetings are held each Monday evening and parachurch groups meet each Thursday evening for study, fellowship, and worship.

Campus Ministries:

A.M.E. Fellowship: African Methodist Episcopal
Baptist Student Union: Baptist
Greek Orthodox Fellowship: Eastern Orthodox
Hillel Society: Jewish
Lutheran Student Movement: Lutheran
Christ the Divine Teacher Parish: Catholic
St. Alban's Parish: Episcopal
Wesley Foundation: Methodist
Westminster Fellowship: Presbyterian

Parachurch interdenominational study and fellowship:

- Campus Crusade for Christ
- The Navigators
- Fellowship of Christian Athletes

Officers' Christian Fellowship
Full Gospel Business Men's Fellowship

### *Campus Worship*

The following three chapels on campus provide regularly scheduled services of worship for Episcopalians, Protestants, and Catholics, respectively: Saint Alban's Chapel, Summerall Chapel, and Blessed Sacrament Chapel.

The inscription on Summerall Chapel, "Remember now thy Creator in the days of thy youth" (Eccl. 12:1), becomes very important to cadets who need a source of strength beyond their personal means. In addition to regularly scheduled worship, Summerall Chapel is open daily for prayer, rest, and meditation.

### *Citadel Chapel Choirs*

Four cadet chapel choirs enhance services of worship on campus. They are the Christ the Divine Teacher Parish Choir, Saint Alban's Episcopal Parish Choir, and two choirs within the Interdenominational Protestant Parish: the Traditional and Gospel Choirs. These four choirs combine for special events each year such as Homecoming Sunday, Christmas Candlelight Service, and Corps Anniversary Sunday.

## Department of Cadet Activities

This department provides morale, welfare and recreation activities for cadets. These activities, outside of the classroom, are intended to provide cadets the opportunity to broaden their talents in areas of interest and capability. The activities staff is located in Mark Clark Hall.

### *Publications*

*The Brigadier*, published by a staff of cadets, serves as the campus newspaper. Approximately seven issues are published each semester.

*The Sphinx*, the college yearbook, is published annually by a staff of cadets. This publication serves as a semiofficial record of the cadet's year.

*The Guidon,* the handbook for fourth class cadets, is published annually by the Cadet Activities staff. It contains a complete description of the activities of the Corps of Cadets, Citadel history, customs and courtesies, and duties and responsibilities of cadets. It is mailed to incoming fourth class cadets early in the summer.

### *Art of Good Taste*

*The Art of Good Taste*, the etiquette manual published by the Cadet Activities staff, is designed to provide cadets with a compact manual of proper etiquette and the customs and courtesies of the lady or gentleman in or out of the service.

All cadets receive instruction in these subjects and are furnished a copy of this booklet for their personal use.

After explaining clearly the value of a knowledge of the correct manner of conducting oneself in a social environment, the booklet presents detailed information on such matters as personal appearance and dress, table manners, introductions, calling cards, social correspondence, overnight visits, and punctuality.

### Fine Arts Series

Inaugurated in 1965, the Fine Arts Series has presented annually a wide variety of programs which have been both entertaining and culturally illuminating. Several programs are presented during the academic year. Included among past performances have been opera singers, musical ensembles, soloists, traditional dance groups from around the world, Shakespearean plays, and dramatic presentations.

### Greater Issues Series

The Greater Issues Series presents two or more major addresses each academic year. The series was inaugurated by General Mark Clark in 1954 to enhance the preparation of The Citadel's Cadets for roles as responsible members of our society. Since then, these addresses have brought to The Citadel an impressive group of distinguished speakers including Presidents of the United States, American and foreign dignitaries, scholars, diplomats, important military figures, business leaders, and many others. These addresses are open to the general public.

### Social Events

All Citadel dances (hops) are under the sponsorship of the Standing Hop Committee, an organization comprised of members of the three upper classes. Their duties are to select bands and coordinate all plans for the hops.

Citadel hops highlight the social activities of the college and are strictly for and by cadets. Few invitations are issued outside The Citadel. The formal hops held annually are the Ring Hop, Homecoming Hop, and the Corps Day Hop. Informal hops and parties are normally held at The Citadel Beach House, except for shag classes held in Mark Clark Hall.

### Choral Organizations

The Citadel Cadet Chorale and the "Original Thirteen" are vocal groups which sing all types of musical arrangements. The Gospel Choir consists of cadets who enjoy gospel and spiritual singing. The choir enjoys a national reputation and has sung in New York, Washington, Atlanta, and throughout the Southeast.

### Musical Organizations

The cadet orchestra, known as "The Bulldog Orchestra" furnishes music for social functions. The Citadel Band provides music for parades, reviews, and other official ceremonies. The Citadel Bagpipers are an integral part of the Band. The Citadel "Pep Band," a group of musicians from within the Citadel Band, performs at Citadel basketball games.

### Clubs and Societies

Membership in a wide variety of clubs, societies, and other organizations is available to all cadets. Among these are literary and discussion groups, professional societies, military organizations, and recreational and service clubs. The span of these activities is so broad and so varied that all cadets should be able to find organizations that fits their interests and talents.

### Social Director

The Citadel Social Director serves as social advisor for cadets. The director's office is located in the reception room of Mark Clark Hall. Under the Social Director's supervision, various cadet committees are formed to plan formal and informal socials, the Miss Citadel contest, and other activities. The Social Director, as cadet hostess, keeps the reception room open and maintained in good taste for the use of cadets and their guests. She maintains an open-door policy and is always willing to assist cadets.

## Cadet Facilities

### Mark Clark Hall

The office of the Department of Cadet Activities is housed on the second floor in Mark Clark Hall, which serves as the student union building. Named after General Mark W. Clark, it has been in use since 1958. On the first floor are a reception room, snack bar, gift shop, post office, and a game room. On the second floor, there is an auditorium, the alcove lounge, the Greater Issues Room, several meeting rooms, and staff workrooms for cadet publications. On the third floor are the Catholic chaplain's office and chapel, the Episcopal chaplain's office, the Honor Court room, and the office and darkroom of The Citadel's photographer.

### Beach House

The Colonel Robert R. McCormick Beach House is on the Isle of Palms, about a half hour's drive from the campus. This functional two-story clubhouse was destroyed by Hurricane Hugo and recently reconstructed on a five-acre tract overlooking the Atlantic Ocean. A bathhouse, outside barbecue and grill areas, and a sheltered picnic area are provided, as well as shuffleboard courts and areas for volleyball and horseshoes. The grounds are floodlighted to facilitate evening parties. Food and beverages are sold on weekends at the Beach House during the warm weather months.

### Boating Center

The Citadel Boating Center membership consists of all members of the student body, faculty, and staff. There are no dues connected with the membership, and preference is given to students in the use of the center's facilities.

The club fleet consists of canoes, small sailboats, and outboard motorboats, and all are available to students.

Boating Center facilities consist of a clubhouse, dockage, marine railway, sail loft, and work area for maintenance and repair of small boats. Storage of privately owned boats is available for a small fee.

### Intramural Athletic Program

The Citadel's intramural athletic program represents an integral part of the cadet's life and is, therefore, strongly recommended for all cadets not involved in intercollegiate athletics or comprehensive sports clubs. The program consists of activities (listed below) including both individual and team sports. Team activities have been separated for freshman and upperclass participation to give all cadets an opportunity to engage in the more vigorous competitive sports. The intramural program is administered by the Department of Health and Physical Education.

Badminton
3 on 3 Basketball
Basketball (FR)
Basketball (UC)
Basketball Freethrow
Golf (Basketball)
Bicycling (Triathalon)
Billiards
Canoe-Race
Croquet
Horseshoes
Table Tennis
Team Handball
Tennis
Flag Football (FR)
Flag Football (UC)
Handball
Innertube Water Polo
Jogging
Racquetball
Track
Volleyball (FR)
Volleyball (UC)
Sigma Delta Psi
Soccer
Softball (FR)
Softball (UC)
Steeplechase
Swimming
Wallyball
Weight Lifting
Wrestling

Note: For further information regarding the intramural program, see the handbook, *Intramurals, Sports Clubs and Recreation—The Citadel.*

## Sports Club Program

The Sports Club Program is administered through the Department of Health and Physical Education by a council of representatives from each of the various clubs. Currently bicycling, boxing, crew, fencing, judo, lacrosse, parachute, pistol, rifle, rugby, sailing, scuba, tae kwon do, and volleyball clubs hold membership on the council.

Note: For further information regarding the Sports Club program, see the handbook,: *Intramurals, Sports Clubs and Recreation—The Citadel.*

## The Honor System

The honor system of the Corps of Cadets makes a unique contribution to the overall educational process at The Citadel. It is an integral part of the training received by all cadets, and its purpose is to inculcate a sense of honor in each Citadel graduates so that they instinctively conduct themselves in an honorable manner.

The Honor Code states that a cadet does not lie, cheat, or steal, nor tolerate those who do. The code is enforced and supervised by a cadet Honor Committee composed of members of the first class who are elected in the spring of their junior year by the three lower classes.

The Honor Committee consists of representatives from each company and each battalion who instruct incoming freshmen in the honor system and assist all cadets with interpreting the honor system. When a cadet is reported for an honor violation, the circumstances are thoroughly investigated; if there is a *prima facie* case established against the cadet, he or she appears before an Honor Court composed of 10 members of the Honor Committee. A cadet accused of an honor violation is provided a cadet counsel, and cross examination is allowed. Conviction by the Honor Court requires a unanimous secret vote of "guilty." If a cadet is found guilty and if the President confirms the verdict, the cadet is expelled from the Corps of Cadets. The Honor Committee is responsible directly to the president of the College. A faculty advisor assists the Honor Committee. This officer provides counsel and acts in an advisory capacity at each Honor Court trial.

## Infirmary

The Citadel Infirmary's primary mission is to provide medical care to The Citadel Corps of Cadets during the regular academic year. The Infirmary is staffed on that basis and operates on a 24-hour-a-day, seven-days-a-week schedule during the time the Corps of Cadets is on campus.

The Citadel Infirmary professional staff consists of one full-time physician, one part-time physician and eight registered nurses. In addition, the physicians are able to consult with a host of specialists in the Charleston area.

The Citadel also has a Sports Medicine Department which is staffed by certified athletic trainers. The Sports Medicine Department provides support to The Citadel Infirmary, the Athletic Department, the three ROTC Departments, the intramural programs, and other cadet, faculty, and staff activities.

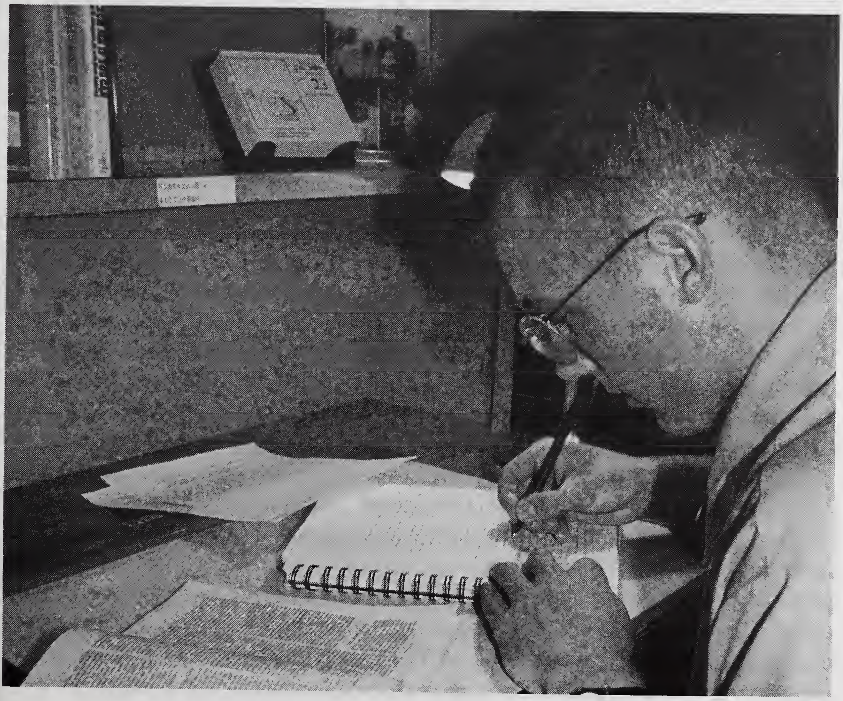
## Hospital Group Insurance

The Citadel has made arrangements with a private insurance company for a group hospitalization program which is available to most cadets. The particulars of this program are provided to the parents or guardians of cadets prior to each school year. This program is approved by The Citadel but operated by the private insurance agency.

The student insurance policy is designed to provide *supplemental* insurance and may not provide adequate coverage for all illnesses or injuries. **It is emphasized that it is up to the cadets and their parents or guardians to determine what they feel constitutes adequate coverage, but adequate hospital/medical insurance is an expectation for all cadets.**

## Employment

The time of a cadet at The Citadel is so taken up with duties that there is little opportunity for employment for the purpose of financial assistance. However, there are a limited number of part-time and work study jobs available with various campus activities. The employment is designed to provide for a modest portion of college expenses.



# Military Policies

## General

The Citadel is justly proud of its military training program which contributes significantly to the State of South Carolina and the nation in the form of military and civilian leadership. The Citadel is one of four Essential Military Colleges remaining in the country. Citadel graduates are adding to the rich heritage of their alma mater as officers in the armed forces and as leaders in the state and nation.

The ROTC training at The Citadel is conducted by active duty commissioned and noncommissioned officers of the U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps. These active duty military personnel are organized into the Department of Military Science (Army Reserve Officers' Training Corps), the Department of Naval Science (Naval Reserve Officers' Training Corps), and the Department of Aerospace Studies (Air Force Reserve Officers' Training Corps). While eight semesters of ROTC training are required of all cadets attending The Citadel, and graduates are encouraged to seek a commission in one of the armed force services, cadet graduates are not required to accept a commission.

## Commandant of Cadets

The Commandant of Cadets commands the Corps of Cadets and is responsible for leadership training and maintenance of discipline. The Commandant also grants leave and other privileges provided for by regulations and is charged with the maintenance of discipline over all cadets attending The Citadel. Furthermore, the Commandant exercises supervision over barracks, controls the officer-in-charge and the cadet guard, and keeps the president of the college informed on matters pertaining to the administration, conduct, and discipline of the Corps of Cadets.

## Discipline

The Citadel is a military college, and high standards of conduct and discipline must be maintained. By instruction and example, cadets are taught to be neat in person and in uniform. Daily inspections of rooms ensure cleanliness and good order. Through individual personal contact and group meetings, cadets are encouraged to uphold the traditions of The Citadel and the standards of honor, integrity, and courtesy which are an outstanding mark of the Citadel cadet.

## Leadership

Leadership, initiative, and character are developed by placing upon cadets the stimulating responsibilities of command within the organization.

All cadets live in barracks. From reveille to taps, every hour of the cadet's time is accounted for. The regular habits of study and living, attention to duty, obedience to authority, and appreciation of order are considered among the most valuable features of The Citadel education. While some graduates enter the military profession, hundreds in all walks of civilian life attest to the high value of the training received at this institution.

The daily routine is regulated by the *Cadet Regulations*, generally known as *The Blue Book.*

## Allowances of Demerits

When cadets accumulate more than 20 demerits per month in their senior year, 22 per month in their junior year, 24 per month in their sophomore year, or 30 per month in their freshman year, they will be declared conduct deficient. Cadets repeating any part of the fourth class year are allowed only 25 demerits per month. Conduct deficient cadets are not allowed to take normal leaves or passes and are required to serve one hour of punishment for each demerit over the specified limit. Any cadet exceeding the allowed limit of demerits or other punishments may be discharged.

## Clothing/Luggage

All cadets are required to furnish their own bedclothes except a bedspread and blanket which will be issued to each cadet. Beds and mattresses are provided by the College, but pillows are not. One cloth mattress cover will be issued at cost to each cadet. Cadets *must* bring with them other required articles (a list of required articles will be provided by the Admissions Office). A list of instructions pertaining to personal effects will be sent to each cadet prior to the reporting date for incoming freshmen.

Cadets' social security numbers will be used as their student identification numbers and laundry numbers.

It is advisable to bring inexpensive trunks and suitcases since it is not permissible to retain them in the cadet's room, and they must be stored in a warehouse on campus. One overnight bag for weekend or athletic trips may be kept in the cadet's room. Excess luggage, on a limited basis, may be stored in the Central Supply storage facility at the risk of the owner.

Luggage may be shipped to The Citadel in advance. Luggage sent by commercial transportation should be clearly identified with the name of the cadet, company letter, and/or barracks number or name and shipped to Central Supply, The Citadel, 171 Moultrie Street, Charleston, S.C. 29409.

## Automobiles

All vehicles operated on campus by cadets, other Citadel students, faculty, or staff must be registered with the Department of Public Safety, but registration is a privilege and not a right. Registered vehicles must meet current home-state requirements with regard to registration, insurance, and safety inspections. All vehicles are operated and parked on campus at the owner's risk. All unregistered or illegally parked vehicles are subject to ticketing and towing at the owner's risk and expense.

Each cadet of the first, second, or third class is authorized to have an automobile at The Citadel. The vehicle must be registered with The Citadel Director of Public Safety.

Parking fees are charged for all on-campus parking. Each registered first or second class cadet vehicle will be assigned a specific, 24-hour per day, reserved parking space on campus. A set of cadet decals for this space will be affixed to each registered vehicle. The vehicle may only be parked in the space designated on the decals and in no other space at any time unless specific authorization is given by a member of the Department of Public Safety.

Cadets of the THIRD CLASS will register their automobiles as noted above and park their vehicles on SOPHOMORE FIELD from Sunday at 1600 hours through Friday at 1700 hours. During the period 1700 Friday, through 1600 Sunday, THIRD CLASS cadets may park behind Capers and Jenkins Hall except during major events/weekends. No cadets will park overnight off-campus in the immediate vicinity of The Citadel. The immediate vicinity is defined by Spring Street on the South, Rutledge Avenue on the East, and St. Margaret Street on the North.

Cadets of the fourth class are not authorized to have, maintain, or park an automobile on The Citadel campus or within the above area at any time during their freshman year. Freshmen should not bring cars to Charleston.

Two or three wheeled motorized vehicles are not authorized to be operated on campus.

## Reserves and National Guards

Cadets may become members of Army, Navy, Air Force, or Marine Corps Reserves or National Guard (Army or Air). Students who join these organizations should consider joining local units in the Charleston area for ease of transportation and conducting business. Although Reserve and National Guard duty is a priority responsibility, cadets must be aware of their academic and Citadel military responsibilities and make all efforts to ensure any conflicts are kept to a minimum.

## Leave

It is expected that parents will not ask for special leave for their sons or daughters except in cases of extreme emergencies. In every case, the decision is left to Citadel authorities as to whether the circumstances warrant the granting of the leave.

The paragraph which follows is extracted from *Cadet Regulations:* 125h

> 803c(4). EMERGENCY LEAVE.
>
> Emergency leave may be granted in the event of death or critical illness of a member of the cadet's immediate family.
>
> Duration of this leave will be predicated upon distance and time required but should normally not exceed five days. The immediate family includes parents, grandparents, brothers, sisters, and the permanent resident members of the family.
>
> Critical illness is defined as an illness of such proportions that death may be imminent.
>
> Special leave normally may be granted upon request of the family or guardian only in the event of the marriage of a member of the cadet's immediate family or golden wedding anniversary in the cadet's family.
>
> Cadets may be granted special leave for such unusual business affairs as cannot be arranged by correspondence but require the presence of the cadet in person. In all cases, the final decision must rest with the authorities of the College.
>
> The Citadel has a weekend and overnight leave policy based on increasing class privileges for cadets who maintain academic and conduct proficiency. Fourth class cadets are not authorized an overnight or weekend leave during the first semester.
>
> Leaves are granted at Thanksgiving, at Christmas, and in the spring, and upon completion of the second semester, the Corps is released on furlough.

The following paragraphs pertaining to medical leave are extracted from *Cadet Regulations:*

> 138. MEDICAL SERVICES.
>
> 138a (3) Except in an emergency occurring on leave requiring immediate attention, a cadet will not arrange for or receive professional treatment from doctors or specialists without the knowledge of The Citadel Physician. Applications for any special leave required for such treatment will be submitted to The Citadel Physician and, if approved, will be forwarded by The Citadel Physician to the Commandant.
>
> 138a (5) Cadets who are receiving medical care under the auspices of a private doctor will in all cases report the nature of the treatment, to include the illness and prescribed medication, to The Citadel Physi-

cian.

138e SPECIAL MEDICAL AND DENTAL SERVICE.

(1) Dental work, special eye examinations, etc. should be scheduled during the summer, Christmas, or spring furlough periods.

(2) If the services of a local dentist, oculist, doctor, or other specialist are deemed necessary, cadets will make their own appointments; however, they must inform The Citadel Physician. If desired, the infirmary will schedule the required appointment for the cadet.

## The Fourth Class System

The purpose of the Fourth Class System at The Citadel is to lay the foundation, early in a cadet's career, for the development of those qualities of character and discipline implied in the mission of The Citadel as a military college—to produce The Citadel Whole Person with an alert mind and a sound body who has been taught high ideals, honor, integrity, loyalty, and patriotism; who accept the responsibilities which accompany leadership; and who has sufficient professional knowledge to take a place in our competitive world.

These personal qualities must be deeply ingrained in individuals so that neither time nor troubles will diminish their respect for complying with the customs and traditions set forth for the fourth class cadets' conduct. Self-discipline and self-evaluation develop graduates whose integrity and sense of duty cause them to serve selflessly beyond the prescribed limits of their tasks.

The Fourth Class System is both difficult and demanding. It represents an abrupt change from the life normally experienced in the home and encompasses the entire period of a cadet's first year at The Citadel. It is administered impersonally and professionally. It requires a full measure of mental preparedness and physical endurance.

Because of the nature of the new cadets' training during their first weeks at The Citadel, physical demands are necessarily great. Experience indicates that the cadets who, prior to admission, have conditioned themselves physically are best able to meet the training requirements.

At the time of your medical examination, consult with your physician regarding your body weight. Particular attention should be given to estimated percent body fat, which provides a much more accurate figure for determining proper body weight than height/weight charts. If body weight loss appears to be indicated, follow your physician's advice relative to reducing caloric intake and increasing caloric expenditure.

The Charleston climate is generally conducive to year-round outdoor physical activity; however, the hot, humid conditions of August and September present several problems worthy of consideration. It is, therefore, important that you prepare yourself by controlled exposure to similar conditions during exercise.

During periods of exercise, dress comfortably and avoid plastic/rubber or heavy cloth sweatsuits.

In preparation, it is advisable to begin with a light to moderate work load of jogging and walking for a 15- to 20-minute period, progressing to longer periods of jogging preceded and followed by calisthenics such as push-ups, bent-leg sit-ups, jumping jacks, and 1/2 knee-bends. *Avoid such exercises as full-knee bends, straight-leg sit-ups, and straight-leg lifts.*

Continued progress should be made until 3 to 5 miles can be covered in approximately 25 to 40 minutes, respectively. It is advisable to be able to perform pushups and situps so as to meet the following standards: males, 42 push-ups and 52 situps, females, 18 pushups and 50 situps. Each event must be completed in two minutes with a ten minute break between the events. Before, during, and following exercise, it is important to replace body fluids. This prevents dehydration, aids in heat loss, and prevents muscle cramps.

In addition, each applicant for entry into The Citadel should be assured through a medical examination that there is no history of physical ailments which could possibly cause discharge due to inability to participate in the Fourth Class System.

The Fourth Class System by nature appears arbitrary on the surface. It demands prompt and unquestioning obedience of authority through the use of a collection of customs and traditions. However, each of the elements or customs has a special purpose in furthering a cadet's development.

The system includes standing at a rigid position of attention, turning square corners when walking, undergoing inspections before formations, learning various items of fourth class knowledge, working on approved company details such as minor chores incident to keeping one's own area of the barracks in order, and submitting to a variety of minor restrictions concerning the use of certain campus grounds and facilities, the wearing of the uniform, and the general conduct of a fourth class cadet.

Cadets who are unable to meet the desired standards or violate one or more of the customs are subject to corrective action. This can range from a verbal reprimand to walking tours on the quadrangle of barracks and may include restriction to the limits of campus. In extreme cases, a cadet who is unable to conform to the military way of life may be brought before a suitability board to determine fitness to continue at The Citadel.

The measures described above are designed to test a cadet's mettle and to determine motivation for cadet life. Their value lies in developing cadets' ability to perform their duty successfully under trying and stress-producing conditions.

Hazing is not a part of the Fourth Class System and is not tolerated. The suffering of degradation, humiliation, and indignity does not foster the rapid development of those qualities sought in fourth class cadets.

The Fourth Class System is a formidable challenge to any young person. The decision to enter The Citadel must be preceded by a conviction on the part of the prospective cadets and their parents that these future cadets have the mental and physical characteristics appropriate to the system and possess a willingness to undergo the system's rigors with a determination to see it through and to reap its benefits.

Although the system is demanding and difficult, the rewards are considerable, and they more than justify the effort. At recognition by the upperclass cadets, a better person emerges—one who is mentally, morally, physically, and spiritually prepared to accept the responsibilities of leadership which will ultimately be given at The Citadel and in the world.

Those students transferring from the national service academies (specifically the Military Academy, the Naval Academy, the Air Force Academy, the Coast Guard Academy, and the Merchant Marine Academy), Virginia Military Institute, or any other institution at which such students have:

a. successfully completed their participation in a fourth class or plebe system;
b. been full-time students in good standing in an ROTC program for the period of their enrollment at such an institution;
c. been enrolled at any of the institutions listed above for a minimum of two semesters;

shall have the option of requesting a transfer out of the Fourth Class System after one semester at The Citadel, provided at that time they are at least academic sophomores. Eligible students exercising this option to transfer out of the Fourth Class System shall have no cadet rank, nor have any authority over the other fourth class cadets for the balance of the academic year. All other transfer students will undergo a full year of the Fourth Class System at The Citadel. The Commandant of Cadets will make the final decisions on requests for transfer.

## The Citadel's Physical Fitness Test

The Citadel's Physical Fitness Test is given at various times during each semester. Any cadet failing to meet minimum standards at any application of the test will be assigned to a remedial physical fitness program. Cadets must satisfactorally pass the physical fitness test to be physically proficient, which is a requirement to qualify for class privileges.

# ROTC Programs

The Citadel offers commissioning opportunities in all branches of the armed services. While every cadet must successfully complete a course in one of four ROTC programs each semester, cadets are not required to enroll in any ROTC commissioning program nor are they required to accept a commission should it be offered.

## ARMY ROTC PROGRAM

The Mission of the Army ROTC is to commission the future officer leadership of the U.S. Army and to motivate young people to be better Americans. Commissioned officers may serve in the Regular Army, Army Reserve, or the National Guard.

Regardless of cadets' academic majors, there is an Army specialty that can fulfill their goals. Besides the combat arms specialties of Infantry, Armor, Field Artillery, Aviation, Air Defense Artillery, and Engineering, the active Army, the Army Reserves, and the National Guard have a need for officers in many technical and specialized areas.

### *U.S. Army ROTC Graduates*

Graduates of The Citadel's Army ROTC program who accept a contract have the opportunity to serve their country in a variety of branches and specialties. Those cadets who have excelled academically and militarily, both in the classroom and at ROTC Advanced Camp, and who have clearly demonstrated high character and outstanding leadership ability, will be selected as Distinguished Military Students.

Graduates may also have the opportunity to serve as Reserve officers either on Active Duty or as members of the United States Army Reserve or National Guard. Headquarters Cadet Command can quarantee active duty to those cadets who are qualified and are recommended by the professor of Military Science. Those who desire to be in the National Guard or a Reserve unit will serve on Active Duty to complete their officer basic course and then serve as a “citizen soldier” in a Reserve or Guard unit near their homes, graduate schools, or work or in the Individual Ready Reserve (IRR). No matter what type of option, the total obligation is eight years of Active and/or Reserve Duty.

### *Scholarships*

The Army sponsors four-year, three-year, and two-year scholarships for outstanding cadets who desire careers as officers in the United States Army. Beginning with the fall term school year 95-96, the Army has awarded four-year, three-year, and two-year annual scholarships based on a “tiered system.” (Tier

I, $12,800; Tier II, $9,000; Tier III, $5,000). Additionally, Tier IV scholarships are awarded to juniors at the start of their junior year. There are $2,550 per year scholarships. Finally, cadets interested in Reserve Duty can apply for a 2-year Guaranteed Reserve Forces Duty (GRFD) scholarship, which is also set up on the Tier I, II, and III system. Cadets desiring service as an officer in the Army National Guard may apply for the two-year dedicated Army National Guard Scholarship.

All scholarship money goes towards tuition and labs, as well as providing $450 per year for textbooks/classroom supplies.

Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarships. In addition, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalog cost per year. Out-of-state four-year scholarship recipients receive $2,500 per year, and each three-year scholarship recipient (in a Designee status) receives free room for the first year and $2,500 per year for the remaining three years. A minimum 3.0 Grade Point Ratio is required to retain The Citadel Scholarship.

### *Pay and Allowances*

Cadets enrolled in the ROTC basic course (freshman and sophomore years) receive a uniform allowance of $602 each year. Cadets who are in the advanced course (junior and senior years) and contract with the Army to be commissioned when they graduate will also have a uniform allowance of $1,806 at the beginning of the junior year. In addition, those cadets who sign an Army contract will receive a $150 allowance each month. Between their junior and senior years, all contracted cadets attend the four-week long Advanced Camp and receive one-half the base pay for a Second Lieutenant plus travel to and from camp from either Charleston or their home of record. Outstanding cadets may be selected to attend Airborne School, Air Assault School, Northern Warfare Training Center, Mountaineering, or Cadet Troop Leader Training (CTLT) with U.S. Army troop units at the pay scale mentioned above.

### *Formal Enrollment Requirements*

The basic requirements for formal enrollment in the Army ROTC program must be fully met before the Professor of Military Science can consider a cadet for enrollment in the Army program. (Cadets not meeting these standards are not eligible for commissions or ROTC monetary allowances.) To be eligible, a cadet must:

1. Be a citizen of the United States.
2. Be of good character. Cadets convicted by a civil or military court of offenses other than minor traffic violations, are not eligible for enrollment without specific approval of the Department of the Army. A cadet may

apply for a waiver of a conviction, provided the offense was nonrecurring and did not involve moral turpitude.

3. Maintain a satisfactory academic record. (A 2.00 cumulative GPR is required for Advanced Camp attendance and commissioning.)
4. Maintain a satisfactory disciplinary record and leadership rating. (This rating is determined by the Professor of Military Science.)
5. Pass the Army Physical Fitness Test (APFT) and maintain and meet the required height and weight standards.
6. Be physically qualified under Department of the Army standards.

Formal enrollment in the advanced course (final two years) and application for an Army contract requires each cadet to pass an Army administered physical examination, normally given during the spring of the third-class (sophomore) year. Waivers for physical defects are granted only in exceptional cases, and then only by authority of the Department of the Army. In addition, the applicant must pass an Army-administered physical fitness test and complete one course in each of five different academic areas. These Professional Military Education courses consist of a course in written communications, military history, computer science, mathematics, and human behavior. Courses meeting these requirements are approved by the Professor of Military Science and published at the beginning of each semester prior to registration.

## NAVY/MARINE ROTC PROGRAM

The purpose of the Navy and Marine Corps NROTC Program at The Citadel is to educate and train cadets for professional service as officers in the U.S. Naval Services. The Citadel's NROTC Program is unique in its ability to use the local Naval and Marine Corps facilities to support its program. Two programs leading to commissioning as ensigns (Navy) or second lieutenants (Marines) are offered:

1. The Navy/Marine Corps Scholarship Program includes selected Naval Scholarship cadets assigned to The Citadel who have their tuition and all or a major portion of their college expenses paid by the Navy Department and will be commissioned upon graduation.
2. The Navy/Marine Corps Advanced Contract ROTC College Program includes cadets who receive limited financial assistance during their junior and senior years and will be commissioned upon graduation.

### *Navy/Marine Scholarship Program*

Navy/Marine Scholarship students are selected through national competition and attend one of the colleges or universities with Naval ROTC units. Each year a number of the Naval ROTC College Program cadets at The Citadel may receive direct scholarship appointments from the Chief of Naval Education and Training. The Naval Scholarship cadets attending The Citadel may enroll in any academic major offered by the college. However, emphasis will be placed upon engineering and science majors for those whose goal is a Navy commission, and all Naval Scholarship cadets, regardless of major, will be required to complete MATH 131/132 and PHYS 210/260/211/261. For those cadets whose major does not call for MATH 131/132 and who have already completed MATH 106 and/or MATH 107 prior to accepting a Naval Scholarship, these courses will not meet any degree requirements once MATH 131 and 132 have been completed. That is, in meeting the Core Curriculum Mathematics requirement, MATH 131 will replace MATH 106, which will then meet no degree requirement. For these students, MATH 132 may satisfy a General Elective requirement. These students attend three summer training periods with pay. In return, the Navy Department provides tuition, certain fees, all textbooks, a uniform allowance, and $150 a month subsistence allowance. Upon graduation, Naval Scholarship cadets receive commissions as ensigns in the U.S. Navy or second lieutenants in the U.S. Marine Corps and serve on active duty for a minimum of four years. While serving on their initial duty, they may apply for a regular commission and gain the opportunity to serve for a full career of active duty. Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarship. In addition, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalog cost per year. Out-of-state four-year scholarship recipients receive $2,500 per year, and each three-year scholarship recipient receives $2,500 per year for the remaining three years. A minimum 3.000 Grade Point Ratio is required to retain The Citadel Scholarship. A table presenting the total amounts paid by the government and by the student who receives an ROTC scholarship is presented following the description of the ROTC Programs.

### Naval ROTC College Program

The Navy/Marine Corps Advanced Contract ROTC College Program is offered for cadets who wish to earn commissions as officers in the U.S. Navy or U.S. Marine Corps. These Naval cadets may enroll in any academic major at The Citadel. Advanced Contract students must attend a minimum of one summer training cruise with pay. The Navy furnishes all naval science textbooks, provides an annual uniform allowance, and pays a monthly subsistence of at least $150 a month during the junior and senior years. Upon graduation, these Naval cadets receive commissions in the U.S. Navy or the U.S. Marine Corps and serve on active duty for a minimum of three years.

### Formal Enrollment Requirements

To be eligible for enrollment in the Naval ROTC program, cadets must:

1. be citizens of the United States;

2. have reached the 17th anniversary of their birth by June 30 of the year enrolled;
3. not have reached the 21st anniversary of their birth by June 30 of the year enrolled; and
4. be physically qualified. (Defective vision must be correctable to 20/20, and waivers for color blindness may be considered.)

Those cadets not qualified for or not desirous of formal enrollment in either the Scholarship or Advanced Contract Program may participate in Naval Science courses for academic credit only. They will not be eligible for appointment to a commissioned grade.

### Selection of Navy/Marine Option

Naval cadets may, upon matriculation, exercise an option and indicate a desire for a commission in either the U.S. Navy or U.S. Marine Corps. This option must be exercised prior to the beginning of the junior year as the Navy and Marine curricula become independent during the last two years. All candidates for the Marine-option must have the recommendation of the Marine Officer Instructor and the approval of the Professor of Naval Science for enrollment.

### *NROTC Summer Training*

Navy/Marine Scholarship cadets are required to perform training of approximately six weeks duration for each of the three summers between their freshman and senior years. Summer training is performed aboard operational ships of the fleet and at various naval bases. Naval cadets receive orientation in four naval warfare areas including surface warfare, submarine warfare, naval aviation, and Marine Corps amphibious warfare. During the third summer, candidates for U.S. Navy commissions perform their training aboard fleet operational ships, serving as junior officers. Candidates for U.S. Marine Corps commissions perform their training at the U.S. Marine Corps Base, Quantico, Virginia.

Naval ROTC Advanced Contract cadets are required to perform one summer of training duty between the junior and senior years. The period of training is about six weeks. Candidates for commissions in the U.S. Navy normally will perform their training aboard operational ships of the fleet. Candidates for commissions in the U.S. Marine Corps will perform their training at the U.S. Marine Corps Base, Quantico, Virginia.

Transportation costs to and from the sites of training will be covered, and cadets will earn one-half of ensign or second lieutenant pay.

### *Summary of Estimated Naval ROTC Allowances*

***Navy/Marine Scholarship Program:***

Each scholarship pays tuition and registration, college, hospital, and laboratory fees outlined in this catalog. The total amount of fees paid by the government and the amount which must be paid by the student are shown following the descriptions of ROTC programs. In addition to these fees, the following payments are also made by the Navy Department:

1. Uniform allowance—paid over three years;
2. Subsistence allowance—$150 per month (up to 40 months) tax free;
3. Summer training pay—one-half of ensign or second lieutenant pay for period of training;
4. Books—all books provided or paid for.

***Advanced Contract Program***

Navy Department reimbursements for students enrolled in the college program are:

1. Uniform allowance—paid over three years;
2. Subsistence allowance—$150 per month (up to 20 months) tax free;
3. Summer training pay—one half of ensign or second lieutenant pay for the period of training.

## AIR FORCE ROTC PROGRAM

The mission of The Citadel's Air Force ROTC Detachment is to provide instruction, education, training, experience, and motivation to each cadet choosing the Air Force ROTC program and to ensure that each cadet possesses the knowledge, character, and qualities of leadership essential to excell as a future officer of the U.S. Air Force or citizen for America.

Emphasis is placed on the preparation of the dedicated professional who accepts responsibility readily, thinks critically and creatively, and writes and speaks effectively.

Citadel graduates have served both the Air Force and the nation well in war and peace. Today's Citadel cadets can be expected to assume important command and managerial positions in the aerospace forces of the United States, government services, or the private sector.

### *Four-Year Program*

The four-year Air Force ROTC program at The Citadel serves as a major commissioning route for young men and women interested in becoming officers in the U.S. Air Force.

Students enroll at the beginning of the freshman year, and during that first year, they study the organization, mission, and functions of the Air Force as well as fundamental leadership, followership and communications skills.

During the sophomore year, cadets will examine the development of air power during this century. Those cadets who are physically qualified and have maintained good academic standing may apply for entry into the advanced portion of the program. Cadets desiring a commission will attend a four-week or six-week field training course between their sophomore and junior years.

Cadets enrolled in the Professional Officer Course—the last two years of the Air Force curriculum—study communication skills, leadership in theory and practice, the principles and functions of management, and problem solving. The final year includes the military justice system, the role of the professional officer in a democratic society, the requisites for maintaining adequate national security forces, the constraints upon the national defense structure, the effect of technological and international developments on strategic preparedness, and an analysis of the defense policy making process.

### *Formal Enrollment Requirements*

To be eligible to pursue a commission through the Air Force ROTC Program, a cadet must:

1. be a citizen of the United States;
2. maintain a satisfactory academic record;
3. be of good moral character;
4. sign a certificate of loyalty to the United States Government.
5. complete the General Military Course with a grade of C or better for each term (AERO 101/102 and 201/202);
6. be physically qualified;
7. agree to serve on active duty and/or reserve inactive duty for a specified period:
   a. four years active duty and four years inactive reserve status for most;
   b. eight years active duty for pilots and six years active duty for navigators after completion of Undergraduate Flying Training.
8. successfully complete a course in mathematics;
9. successfully complete a four-or six-week field training course.

### Field Training

Citadel cadets pursuing a commission through AFROTC are required to attend a four-week or six-week training course at an Air Force base during the summer between the sophomore and junior years. For all cadets, this is a memorable experience because they get a close look at Air Force life and operations. Each cadet receives practical guidance in junior officer training, aircraft and aircrew orientation, small-arms familiarization, physical training, survival training, career opportunities, and training in other areas needed by the Air Force professional.

## Base Visits

The vast scope of the United States Air Force is difficult to portray in the classroom. In partial compensation, the Air Force ROTC detachment at The Citadel takes its cadets to the Air Force—in the form of visits to Air Force bases. On these trips the cadets receive briefings on base activities, observe Air Force operations firsthand, and, as a highlight, are offered orientation rides in jet aircraft. They return to school with a more accurate perspective of the global nature of the organization in which they may serve. Experience has shown these visits are of considerable value in developing the cadets' appreciation of the Air Force officers' challenging career.

## Pay and Allowances

A cadet selected for the Professional Officer Course will be provided subsistence pay at the rate of $150 per month beginning on the day the cadet starts advanced training and ending upon the completion of instruction. In no event shall any cadet receive such pay for more than 20 months.

## AFROTC College Scholarship Program

To attract the highest quality students, Air Force ROTC is authorized to grant scholarships which provide full tuition, registration fees, college fees, hospital fees, laboratory fees, and a textbook allowance. Uniform allowances are also paid to cadets at The Citadel. Scholarship recipients are paid a tax-free subsistence of $150 per month. Cadets attending The Citadel or desiring to attend are eligible to compete for these four-, three-, and two-year AFROTC scholarships. Selections are made on the basis of the student's academics, officer aptitude as reflected on the Air Force Officer Qualifying Test, SAT scores, medical examination, demonstrated performances, and an interview by a panel of active duty officers. Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarship. In addition, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalog cost per year. Out-of-state four-year scholarship recipients receive $2,500 per year, and all three-year scholarship recipients receive free room in the first year and $2,500 per year for the remaining three years. A minimum 3.0 Grade Point Ratio is required to retain The Citadel scholarship. A table presenting the total amounts paid by the government and by the student who receives an ROTC scholarship is presented following the description of the ROTC Programs.

AFROTC Scholarship recipients must successfully complete at least one year of instruction in a major Indo-European or Asian language. Demonstration of foreign language proficiency can be used to satisfy this requirement.

## COLLEGE COSTS COVERED BY ROTC SCHOLARSHIP

### For South Carolina Students 1997-98

| **Freshmen** | **Total** | **Amount Paid By Government** | **Amount Paid By Student** |
|---|---|---|---|
| First Semester | $7,457.00 | $1,749.50 | $5,707.50 |
| Second Semester | $4,357.00 | $1,749.50 | $2,607.50 |
| Total | $11,814.00 | $3,499.00 | $8,315.00 |
| **Sophomore** | | | |
| First Semester | $4,557.00 | $1,749.50 | $2,807.50 |
| Second Semester | $4,557.00 | $1,749.50 | $2,807.50 |
| Total | $9,114.00 | $3,499.00 | $5,615.00 |
| **Junior** | | | |
| First Semester | $4,557.00 | $1,749.50 | $2,807.50 |
| Second Semester | $4,557.00 | $1,749.50 | $2,807.50 |
| Total | $9,114.00 | $3,499.00 | $5,615.00 |
| **Senior** | | | |
| First Semester | $4,557.00 | $1,749.50 | $2,807.50 |
| Second Semester | $4,557.00 | $1,749.50 | $2,807.50 |
| Total | $9,114.00 | $3,499.00 | $5,615.00 |

### For Out-of-State Students 1997-98

| **Freshmen** | **Total** | **Amount Paid By Government** | **Amount Paid By Student** |
|---|---|---|---|
| First Semester | $9,778.50 | $4,071.00 | $5,707.50 |
| Second Semester | $6,678.50 | $4,071.00 | $2,607.50 |
| Total | $16,457.00 | $8,142.00 | $8,315.00 |
| **Sophomore** | | | |
| First Semester | $6,878.50 | $4,071.00 | $2,807.50 |
| Second Semester | $6,878.50 | $4,071.00 | $2,807.50 |
| Total | $13,757.00 | $8,142.00 | $5,615.00 |
| **Junior** | | | |
| First Semester | $6,878.50 | $4,071.00 | $2,807.50 |
| Second Semester | $6,878.50 | $4,071.00 | $2,807.50 |
| Total | $13,757.00 | $8,142.00 | $5,615.00 |
| **Senior** | | | |
| First Semester | $6,878.50 | $4,071.00 | $2,807.50 |
| Second Semester | $6,878.50 | $4,071.00 | $2,807.50 |
| Total | $13,757.00 | $8,142.00 | $5,615.00 |

# Expenses

The Citadel, The Military College of South Carolina, is supported by the State of South Carolina. The costs of operation are underwritten through fees collected from the students and appropriations made by the General Assembly of South Carolina. Nonresidents are required to pay a larger portion of the costs of their education than is required of residents of South Carolina.

The Citadel Treasurer is responsible for the collection of monies due The Citadel. All correspondence concerning fees, payments, and status of accounts should be directed to that office. If referral to a collection agency is required for overdrawn accounts, the amount referred will include the collection agency fee.

## Fees

The fees shown below are required to be paid by all students who attend The Citadel in the day program. Active duty military personnel assigned to military units for educational purposes pay the same fee except for auxiliary and barracks project fees. Please note that the required fees at The Citadel include all normal expenses to be incurred by a student including dry cleaning, laundry, room, board, and infirmary care. The college reserves the right to adjust fees to meet the current cost of operation should it become necessary. This applies to all educational programs at The Citadel.

### Expenses for South Carolina Students*

| | |
|---|---|
| Registration | $ 25.00 |
| Tuition Fee | 125.00 |
| College Fee | 2,522.00 |
| Athletic Fee | 340.00 |
| Plant Improvement Fee | 122.00 |
| Auxiliary Services | 3,543.00 |
| Barracks Project Fee | 1,237.00 |
| Total Fees: | $7,914.00 |

### Expenses for Out-of-State Students

| | |
|---|---|
| Registration Fee | $ 25.00 |
| Tuition Fee | 385.00 |
| College Fee | 6,470.00 |
| Athletic Fee | 775.00 |
| Plant Improvement Fee | 122.00 |
| Auxiliary Services | 3,543.00 |
| Barracks Project Fee | 1,237.00 |
| Total Fees: | $12,557.00 |

*South Carolina residents are those persons who meet the residency requirements specified in the South Carolina Code of Laws, Act #466-1978 and amendments thereto. All other persons must pay out-of-state fees.

All fees and deposits are due and payable by semester, prior to the date of reporting to school for registration. Payments of fees are due as shown on the table presented later in this section. Failure to pay the invoice or any part thereof subjects the student to being dropped from enrollment at The Citadel. Bills for the regular academic year will be sent to parents or guardians approximately one month prior to the due date. Remittances by money order or check should be made payable to The Citadel and mailed to the Treasurer, The Citadel, 171 Moultrie Street, Charleston, South Carolina 29409. The Citadel assesses late payment charge on all unpaid balances.

Parents or legal guardians are responsible for payment of all fees and overdrafts, unless the Treasurer is notified prior to due dates that the student or some other party has assumed this responsibility.

Information relative to financing educational fees on a monthly installment basis may be secured by writing to the Treasurer at The Citadel. The Treasurer also has information concerning financing educational fees through loans other than the guaranteed student loan. Financing arrangements require time for processing, so it is essential that application be made as early as possible in the school year.

*Overdrawn Accounts:* A student whose account is overdrawn will not be issued or be allowed to send copies of his or her official transcript, be issued a diploma, or be permitted to enroll in additional course work until satisfactory settlement of the account has been made.

*Non-negotiable Checks:* There will be a handling charge of $25 for a non-negotiable check. The college will pursue collection procedures as provided by the laws of the State of South Carolina. The Citadel will not accept personal checks from individuals who have issued two non-negotiable checks or one non-negotiable check which has not been redeemed.

*Depository:* The uniform, books, supplies, and accessories deposit does not provide for a cadet's personal needs. All allowances for personal needs should be determined by parents and sent directly to the cadet. Cadets receiving substantial allowances for their personal needs can deposit this money in The Citadel Depository. This depository is like a bank account. Cadets may withdraw up to $150.00 cash from their depository accounts in a day. A service charge is assessed each semester to offset the cost of operation of the depository. The Citadel Depository is located in the Treasurer's Office.

## Explanation of Deposits

*Deposits for Books, Academic Supplies, Uniforms, Accessories and Haircuts:* In addition to the fees previously described, all cadets are required to deposit funds into their accounts to cover the estimated cost of books, academic supplies, engineering drawing equipment, uniforms, accessories, alterations to uniforms and haircuts. The amount of the deposit has been estimated based upon the average needs of a cadet. If the deposit should be exceeded, additional funds will have to be added.

The required deposits are as follows:

| | | |
|---|---|---|
| Freshmen | | |
| Uniforms | $2,980 | |
| Books, Supplies, and Accessories | 920 | |
| Total | | $3,900 |
| Sophomores | | |
| Uniforms | $535 | |
| Books, Supplies, and Accessories | 665 | |
| Total | | $1,200 |
| Juniors | | |
| Uniforms | $535 | |
| Books, Supplies, and Accessories | 665 | |
| Total | | $1,200 |
| Seniors | | |
| Uniforms | $535 | |
| Books, Supplies, and Accessories | 665 | |
| Total | | $1,200 |

*Books, Supplies, and Accessories:* This deposit has been kept to a minimum to cover only necessary educational requirements. Different academic majors may require other expenditures which are unique to that major field.

*Uniforms:* All cadets are required to wear The Citadel uniform, which is issued by the College. New cadets are required to be outfitted in new outer uniforms and uniform accessories issued by the college. New cadets should not bring a supply of civilian clothes other than those which are worn upon reporting to the college, as they are not permitted to wear civilian clothes except during authorized furloughs.

The cost of uniforms, although a paid fee, should be viewed as a clothing expense which is incidental to attending any college. With proper care, uniforms should last for several years. Of course, the requirements during the subsequent years will depend on the manner in which cadets have cared for their uniforms. The overall cost of the uniforms should not exceed that which would be incurred in purchasing clothes to attend a civilian college. Additional sets of uniforms may be purchased as desired (for cash) in the Cadet Store.

The woolen uniforms issued to cadets are custom-made for The Citadel. Once the uniforms have been fitted, the entire cost will be charged to the cadet. Since the uniforms are tailor-made to the measurements of each cadet after enrolling at The Citadel, every cadet withdrawing from college will be charged a fee for canceling the purchase of the uniforms.

In order to keep the appearance of the Corps of Cadets at the highest level, an inspection will be made of the uniforms of members of the sophomore, junior, and senior classes at the beginning of the school year. If the uniforms do not meet the minimum standards of appearance, the individual will be required to purchase replacements for unserviceable uniform items.

Students who have been awarded a full athletic grant-in-aid require approval from the Athletic Department for all purchases to be charged to the deposit account.

*Personal Items and Other Miscellaneous Expenses:* The Citadel will permit cadets to charge personal items and other miscellaneous items relevant to their studies or attendance at The Citadel. Cleaning and laundering of non-cadet uniform items, date tickets to athletic events, and purchase of personal items and school supplies at the Gift Shop are included in this category of charges. These charges will be posted to a separate cadet charge account and billed on a monthly basis if the student account is overdrawn.

## Statement of Student's Account

A statement of students' accounts will be furnished upon request. *It is incumbent upon the students to verify each charge or credit made to their accounts.*

Any unexpended balance will be returned upon request at the close of the academic year; otherwise, it will be held until the next academic year, or until the student withdraws or graduates from The Citadel.

*A parent or guardian of a cadet must request the refund.* Full athletic grant-in-aid and full academic scholarship recipients are not authorized to receive a refund. Balances in accounts of full athletic grant-in-aid recipients are refunded to the Athletic Department annually.

## Explanation of Fees/Charges

*Room Deposit:* A room deposit of $100 is required of all cadets. This is not an additional charge but is an advance payment toward the fees due for the fall semester and will be shown as a credit on the first semester bill. It assures a cadet a place in the Corps of Cadets and barracks for the following August, if the student's account from the previous semester is clear.

All new cadets are required to pay the room deposit and a $50 breakage deposit immediately upon determining that The Citadel is the school which he or she will enroll in the fall. The room deposit is refundable through May 1.

A currently enrolled cadet who plans to continue at The Citadel is required to pay the room deposit not later than July 1 for the fall semester. If this deposit is not paid by July 1 and the student account cleared from the previous semester, The Citadel is not obligated to permit the cadet to continue at The Citadel.

Room deposits will be refunded to currently enrolled cadets who notify the Registrar in writing not later than July 1 to cancel their reservations at The Citadel.

After July 1, this deposit will be refunded only to those upperclassmen (sophomores, juniors, and seniors) who have been dropped from enrollment at The Citadel.

*Auxiliary Services Fee:* A fee of $4,780 per academic year is assessed each student to cover room, board, laundry, dry cleaning, and the infirmary fee. For the purpose of loan applications, costs for room and board should be shown as $3,950 and laundry, dry cleaning, and infirmary as $830.

Due to many uncontrollable factors, the college reserves the right to increase this auxiliary fee at any time to meet current increases in the cost of operation. This fee is refundable upon withdrawal from school as shown later in this section.

*Breakage Deposit:* A $50 deposit will be maintained for each cadet. When there is insufficient money in the cadet's account to cover the cost of damages to buildings, rooms, equipment, or loss of ROTC manuals or government property, this deposit will be used. The unused portion is refundable after graduation or withdrawal from The Citadel.

*Diploma Fee:* The charge for a diploma for graduating seniors is $55. A $60 fee will be charged for duplicate diplomas.

*Transcript Fee:* Official transcripts of scholastic records will be furnished only upon written request. There is no charge for the initial transcript, but a fee of $3 is charged for each subsequent transcript requested. Remittances for transcripts should accompany the application for the transcript and should be mailed to the Registrar (checks payable to The Citadel).

*Laboratory/Orientation Fees:* Laboratory/Orientation Fees are charged students taking certain designated courses or orientation programs. Fees are billed as part of the preregistered course load.

*Computer Support Fee:* A computer support fee is charged each cadet. The fee partially offsets the cost of the various computer laboratories on campus and the costs associated with having computers in barracks rooms.

*Late Payment Charge:* A late payment charge is assessed to student accounts that are not paid by the due date on the bill.

## Schedule for Payments for South Carolina Residents

| *Due Date* | *Freshmen* | *Sophomores* | *Juniors* | *Seniors* |
|---|---|---|---|---|
| First Semester Fees & Deposit 8/18/97 | 7,457.00 | 4,557.00 | 4,557.00 | 4,557.00 |
| Second Semester Fees & Deposit 12/17/97 | 4,357.00 | 4,557.00 | 4,557.00 | 4,557.00 |
| Total Academic Year* | $11,814.00 | $9,114.00 | $9,114.00 | $9,114.00 |

## Schedule for Payments for Out-of-State Residents

| *Due Date* | *Freshmen* | *Sophomores* | *Juniors* | *Seniors* |
|---|---|---|---|---|
| First Semester Fees & Deposit 8/18/97 | 9,778.50 | 6,878.50 | 6,878.50 | 6,878.50 |
| Second Semester Fees & Deposit 12/17/97 | 6,678.50 | 6,878.50 | 6,878.50 | 6,878.50 |
| Total Academic Year** | $16,457.00 | $13,757.00 | $13,757.00 | $13,757.00 |

*NOTE: Total payment includes deposits on uniforms, books, supplies, and accessories.

## Refunds

The Citadel is committed to many expenses based upon the anticipated enrollment of a student at the beginning of each semester. Registration at The Citadel is considered to be a contract binding students and their parents or guardians to charges for the entire semester.

However, students who withdraw during a semester may receive partial refunds based on the length of attendance. Refunds will be computed from the required reporting date until the withdrawal date as determined by the Registrar. No refunds will be made for less than $1.00.

Authorized refunds are as follows:

*The school is not subject to any State or Accrediting Agency refund policy.*

*Institutional*

Tuition, College and Auxiliary Services Fees (except Room and Board)

| *Length of enrollment* | *Semester fees refunded* |
|---|---|
| less than one week* | 80% |
| one to two weeks | 60% |
| two to three weeks | 40% |
| three to four weeks | 25% |
| after four weeks | none |

*NOTE: Freshman cadets who leave during Freshman Orientation Week are eligible for a 90% refund of all fees, except board fees.

*Room Fee:*

The $100 room deposit is forfeited. The remaining amount of the room fee is refunded as follows:

| ***Length of enrollment*** | ***Semester fees refunded*** |
|---|---|
| less than one week* | 80% |
| one to two weeks | 60% |
| after two weeks | none |

*NOTE: Freshman cadets who leave during Freshman Orientation Week are eligible for 90% refund of room fees, other than the $100 deposit, except for first time students who receive federal financial assistance.

*Board Fees:*

Board fees will be computed on a weekly basis, and refunds will equal one-half the unused balance.

*Deposits for Uniforms, Books, Supplies, and Accessories:*

The unused portion of the deposit to the student's account for uniforms, books, supplies, and accessories will be refunded. Refunds will be mailed within 30 days after discharge. When appropriate, May graduates will receive a check for the credit in their accounts within 30 days.

*Pro Rata Refund Policy*

For all *first-time* students receiving federal aid who withdraw before the eleventh week of the term.

Excludable institutional costs are administrative fee and documented costs of unreturnable equipment.

| ***Withdraws*** | ***Percent of Refund*** |
|---|---|
| up to 10% of period | 90% |
| up to 20% of period | 80% |
| up to 30% of period | 70% |
| up to 40% of period | 60% |
| up to 50% of period | 50% |
| up to 60% of period | 40% |

All students receiving federal aid attending the school for the first time who withdraw on or before the 60% point in time are subject to the pro rata refund requirements. A "first-time student" is any student who received a refund of 100% of the charges for tuition and fees, less any allowable administrative fee, for previous attendance at the school or any student who has not previously attended at least one class at the school.

When the Treasurer's Office establishes that a student is a "first-time student," the following calculations will be used to determine if the student withdrew on or before the 60% point in time. The school multiplies the number of weeks in the period of enrollment for which the student was charged by 60%. If the number of weeks the student completed is less than or equal to this result, the student is considered to have withdrawn on or before the 60% point in time.

The Financial Aid office will calculate and the Treasurer's Office will provide a refund of not less than the portion of the tuition, fees, room, board, and other charges assessed the student by the school that is equal to the portion of the period of enrollment for which the student has been charged that remains on the date that the student withdrew, less any unpaid amount of a student's scheduled cash payment.

*Federal Refund Policy*

For those students who have been awarded Federal Student Aid and who are not first-time students, the following refund schedule applies to tuition, fees, room, and board.

| ***Withdraws*** | ***Percent of Refund*** |
|---|---|
| on or before the first day of term | 100% |
| up to 10% of period | 90% |
| after 10% and before 25% of period | 50% |
| after 25% and before 50% of period | 25% |
| after 50% of period | 0% |

For all federal aid recipients subject to the institutional refund policy, the Financial Aid Office will also calculate a federal refund amount according to regulatory requirements and will compare the results. In all cases, the school will refund at least the larger of the results to these two calculations.

If students withdraw on or before the first day of classes for the period of enrollment for which they were charged, the school will refund not less than 100% of the students' institutional charges.

If the student withdrew at any time after the first day of classes up to and including the end of the first 10% (in time) of the period of enrollment, the school will refund at least 90% of the student's institutional charges.

If the student withdrew at any time after the first 10% (in time) up to and including the end of the first 25% (in time) of the period of enrollment, the school will refund at least 50% of the student's institutional charges.

If the student withdrew at any time after the first 25% (in time) up to and including the end of the first 50% (in time) of the period of enrollment, the school will refund at least 25% of the student's institutional charges.

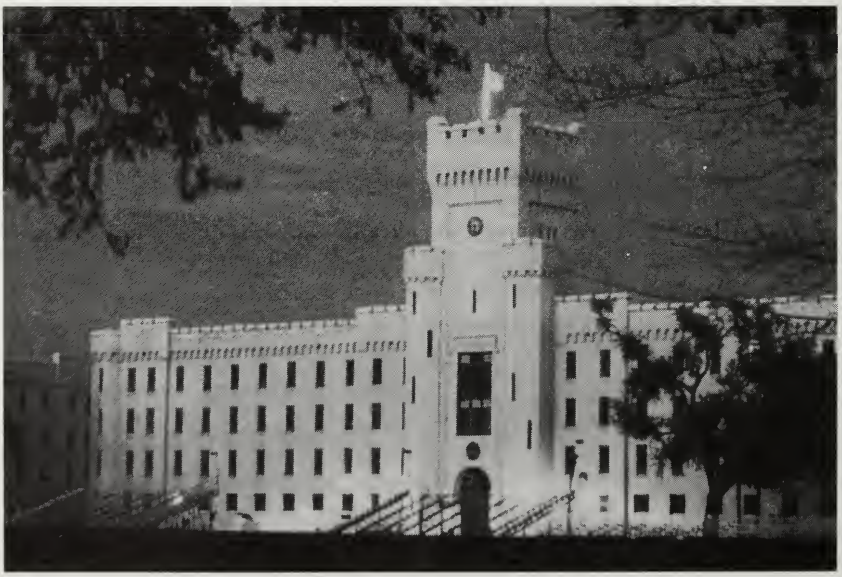
For the purposes of calculating the percentages "in time" as discussed above, the Financial Aid office will divide the number of weeks students have completed at the time they withdraw from school by the number of weeks in the period of enrollment for which the student was charged.

The school does exclude from the refund calculation a reasonable administrative fee of one hundred dollars.

The school does exclude from the refund calculation the documented cost to the school of unreturnable equipment issued to the student or of returnable equipment issued to the student if the student does not return the equipment in good condition, allowing for reasonable wear and tear, within 20 days following the date that the student withdraws.

The school considers that equipment was not returned in good condition and, therefore, is unreturnable, if the equipment cannot be reused because of clearly recognized health and sanitary reasons.

The school further defines what is "not good condition" as follows: if an item cannot be resold as new. The uniforms issued to cadets are custom-made for each cadet. Once the uniforms have been fitted, the entire cost will be charged to the cadet. Since the uniforms are tailor-made to the measurements of each cadet after enrolling at The Citadel, every freshman cadet withdrawing will be charged a fee for canceling the purchase of the uniforms which have not been issued.



# Financial Aid and Scholarships

The Citadel's scholarship program is designed to attract outstanding high school graduates to the college, reward undergraduate academic excellence, and assist those worthy students who desire financial assistance to complete their college education.

Annually, The Citadel awards more than 1.5 million dollars in academic scholarships to entering freshmen and upperclassmen. More than 25 full academic scholarships covering all catalog costs are awarded to entering freshmen.

## HOW TO APPLY

Obtain an application for a Citadel scholarship from the Office of Financial Aid and Scholarships. Return it to this office by January 15th for entering freshmen and by February 1st for upperclass cadets. With this one scholarship application, the applicant is considered for all scholarships.

Since a number of scholarships specify "need" as a condition of that award, it is recommended that an applicant file a *confidential* *Free Application for Federal Student Aid.*

Refer to the section titled Citadel Scholarships on page 89 for individual scholarship names and criteria.

## DETERMINATION OF AWARDS

All scholarship applications and documents are carefully considered by the Scholarship Committee. Each application is evaluated and ranked objectively with consideration given to class standing, grade point ratio, SAT or ACT scores, personal achievement and leadership potential.

Many scholarships contain restrictions as stipulated in deeds of trust. The Citadel matches the most qualified scholarship candidates to such restrictions.

## AWARDS

Most scholarship candidates will be notified by April 30th as to the scholarship(s) received, whether a candidate is an alternate, or whether no scholarship funds will be offered for the next academic year.

All scholarships must be applied for on an annual basis, except for full academic scholarships and those scholarships whose deeds of trust specify multi-year awards.

### *Private and Outstanding Scholarships*

Numerous corporations, employers, professional organizations, foundations, local civic organizations, churches, and high schools make scholarships available to Citadel cadets.

Outside scholarship assistance has been a rapidly growing sector in financial aid at The Citadel. It requires initiative on the student's part. Consult your high school counselor, employers, civic leaders or officials and use the local library for information on educational foundations which offer scholarships.

The Citadel has a number of Palmetto Fellows, Sirrine, and C.G. Fuller Foundation Scholarships which are available to residents of South Carolina.

### *ROTC Scholarships*

ROTC scholarships represent significant financial assistance at The Citadel. Each service, whether Army, Navy, or Air Force, has its own criteria and time tables for application and acceptance. SAT or ACT scores must generally be received by a respective service branch by January of the senior year of high school.

Once at The Citadel, a cadet may apply for three- or two-year scholarships. These scholarships pay all tuition, fees, books, and uniform costs. They do not cover room and board. Nearly 10% of the Corps of Cadets hold ROTC scholarships.

Those interested in ROTC scholarships should contact the head of each ROTC unit on The Citadel campus for further information and assistance.

### *ROTC Scholarship Enhancement Program*

All first-time freshmen receiving four-year ROTC scholarships are eligible for the Citadel's ROTC Enhancement Program. This program entitles out-of-state four-year scholarship recipients to receive a grant of $2,500, not to exceed college catalog costs. In-state four-year recipients are awarded full coverage through the enhancement. This award is intended to be a four-year grant unless the student decides to give up the ROTC scholarship or does not maintain at least a 3.000 GPR.

First-time freshmen who are designated for three-year ROTC scholarships will be entitled to waiver of barracks or room fees their freshman year. When they receive their ROTC scholarship during their sophomore year, they will be awarded the $2,500 grant, as long as they maintain their eligibility and the 3.0 GPR.

## FEDERAL ELIGIBILITY REQUIREMENTS

Any student who is accepted for admission is eligible to request financial assistance. However, there are several general eligibility requirements you must meet to receive federal financial aid.

Admission Status: You must be admitted to The Citadel as a regular or conditional student.

Citizenship: You must be a U.S. citizen or a national or permanent resident.

Default: You may not receive aid if you are in default at any institution on any Federal Student Loan Program.

Enrollment: Generally, you must be enrolled at least half-time (6 hours).

Repayment: You may not receive aid if you owe a repayment at any institution on a Pell Grant, Supplemental Grant, or State Student Incentive Grant.

Satisfactory Academic Progress: You must have a minimum grade point average and you must make satisfactory progress toward a degree to continue to receive aid. (See section in this guide for a full definition of satisfactory progress.)

## TYPES OF FINANCIAL AID GRANTS

### *The Federal Pell Grant Program*

The Federal Pell Grant program provides federal grants for eligible undergraduate students. Eligibility is determined by the Free Application for Federal Student Aid (FAFSA) using a nationally mandated formula applied uniformly to all applicants. Students must demonstrate satisfactory progress toward a degree each year to receive a Pell Grant in the next academic term.

The Citadel participates in the Department of Education's Electronic Data Exchange (EDE) program, which provides the student and institution with faster processing of applications. When a student completes the FAFSA, the eligibility for a Federal Pell Grant is determined by the processor, and a paper Student Aid Report (SAR) is generated and mailed to the home address. At the same time, an Electronic ISIR is generated to the school. If corrections need to be made on the application the institution can send the corrections electronically and have the results within 4 days instead of the 2-3 weeks previously required.

### *The Federal Supplemental Educational Opportunity Grant (SEOG)*

The SEOG program provides aid to students who qualify for Pell Grants and who show exceptional financial need. These grants range in value from $300 to $1,000 per academic year, the average award being $750.

### *Athletic Grants-in-Aid*

These grants are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

## WORK PROGRAMS

### *The Federal Work Study Program*

This program, which is federally funded, provides part-time employment to qualifying students. Students are paid on an hourly basis, not less than the federal minimum wage. Paychecks for hours worked are issued biweekly directly to the student. The Personnel Office will make assignments after a student has been awarded work-study.

*The Institutional Work Program*

This program makes funds available for student jobs on campus. These jobs are available in a variety of academic and administrative offices. Students do not need to "qualify" for these positions, as they are not federally funded. Inquiries should be directed to the Personnel Office.

## LOANS

*The Federal Perkins Loan Program*

The Perkins loan program provides needy students with long term, low interest loans for educational expenses. Loans range from $300 to $3,000 per year. The interest rate is five percent. Federal legislation requires institutions to make Perkins Loans available first to students with exceptional financial need. Full-time undergraduate applicants are given priority when funds are limited.

Repayment begins following a grace period of nine months after graduation or termination of enrollment on at least a half-time basis. Students may be allowed up to ten years to repay based upon the amount borrowed, with a $40 per month minimum payment required. Loan repayment may also be deferred for specific reasons.

There are also cancellation provisions for borrowers who enter specific fields of teaching, teach in designated schools, serve in an area of hostilities, volunteer under the Peace Corps or the Domestic Volunteer Service Act of 1973, or serve as a law enforcement or corrections officer.

*The Federal Direct Loan Program*

The Direct Loan program (formerly GSL) provides students with long term low interest loans. Both subsidized and unsubsidized Direct Loans are available. The federal government “subsidizes” a loan by paying the interest while the student is in school. For an unsubsidized loan the government does not provide the subsidy; therefore, interest on the loan accrues while the student is enrolled. Another difference between these two loans is that the family contribution is taken into consideration when determining a student’s need for a subsidized loan. Eligibility for an unsubsidized loan does not consider the family contribution.

The maximum amounts that a student may borrow, combined subsidized and unsubsidized, may not exceed $2,625 for a student who has not completed the first year of a program, $3,500 for a student who has completed the first year but not the second, and $5,500 for the remaining years of undergraduate study not to exceed an aggregate maximum of $23,000. A graduate student may borrow up to $8,500 annually with an aggregate of $65,000 including amounts borrowed as an undergraduate student.

The interest rate on a Direct Loan for students borrowing for the first time after October 1, 1992 is variable, annually, and is tied to the 91-day Treasury bill. The maximum interest rate is 8.25%.

### *The Federal Direct Parent Loan for Undergraduate Students*

Under the Federal Direct PLUS program parents of dependent undergraduate students may borrow up to the difference between the student's cost of attendance and estimated financial assistance annually for each dependent student. There is no aggregate maximum under this program.

The interest rate on PLUS Loans is variable and is determined annually by a formula linked to the yearly Treasury bill rates. However, the interest rate may not exceed 9%. Repayment begins 60 days after disbursement.

### *South Carolina Teacher Loan Program*

This loan program is intended to attract talented teachers to remain in South Carolina by offering a cancellation of their student loan. A loan recipient who becomes certified to teach in a subject area of critical need or in a designated school district has the loan cancelled at the rate of 20% for each full year of teaching up to 100%. To qualify, the student must be a resident of South Carolina attending college for the purpose of becoming a certified teacher. Employment must be in the state's public school system in an area of critical need as defined by the State Board of Education. Loan recipients who do not become certified or do not teach in an area of critical need to repay the entire amount of the loan plus interest.

Because funds in the program are limited, there is a priority processing deadline of April 1. To ensure that your application is received at the South Carolina Student Loan Corporation by the deadline, you must submit it to The Citadel Office of Financial Aid and Scholarships no later than March 15.

### *Governor's Teaching Scholarship Loan Program*

Also established by the State of South Carolina, the Governor's Loan Program was established to attract bright and talented South Carolina students to the teaching profession. These loans are cancelled at a rate of 20% for each year a recipient teaches in the public schools of South Carolina. Applications are available by contacting the South Carolina Student Loan Corporation, P.O. Box 21487, Columbia, SC 29221.

### *Paul Douglas Scholarship Loan*

The Paul Douglas Scholarship (PDS) is a loan/scholarship program established for outstanding high school graduates to encourage and enable them to pursue teaching careers at the preschool, elementary, or secondary level. Maximum loan amounts are $5,000 per year. Selection is based on academic performance, evidence of leadership, extracurricular participation, and the promise of service as a teacher at the preschool, elementary, or secondary level. A recipient must be a South Carolina resident or non-resident attending a South Carolina institution. These loans are cancelled at two years teaching for each year of scholarship. Applications are available by contacting the South Carolina Student Loan Corporation, P.O. Box 21487, Columbia, SC 29221.

## FORMS AND DEADLINES

To apply for financial aid at The Citadel, all students should file a *Free Application for Federal Student Aid* (FAFSA) as soon as possible after January 1. These forms are available from your high school or by contacting a financial aid officer at any postsecondary school or college. Other forms which must be completed include financial aid transcript(s) for each postsecondary institution attended and default and selective service statements. Additional information may be requested by the Financial Aid Office and should be submitted promptly.

Because funds are limited, those students whose applications are completed after the deadline dates will receive consideration for aid as funds permit. Deadline dates are as follows:

| | |
|---|---|
| Academic year (fall and spring) | March 15 |
| Fall only | March 15 |
| Spring only | October 15 |
| Summer | March 15 |

*Applicants whose forms are not completed by June 30 should not expect to receive notification of awards prior to the beginning of fall semester. These applicants must come prepared to pay for their tuition, fees, and room and board costs and will be reimbursed if they are subsequently determined to be eligible for financial aid.*

## DETERMINING FINANCIAL NEED

The amount of financial aid you will receive is determined by the FAFSA form you file after January each year. This form gathers information about your family's current financial situation and produces an "expected family contribution." Adjusted gross income data from tax forms are used along with current asset information to determine family resources. Allowances for federal and state taxes, social security, employment (when both parents work), unusual medical and dental expenses, and family size are made. Other factors considered are any unusual expenses and the number of family members in college.

In its simplest definition, your financial need is the difference in what you will pay to attend college and your expected family contribution, as determined by the need analysis. If your costs exceed the amount of your contribution, then you have "demonstrated" financial need. The formula looks like this:

$XXXX: your cost of attendance
-XXXX: expected family contribution

$XXXX: **YOUR FINANCIAL NEED**

## DEPENDENT OR INDEPENDENT

Federal student aid programs are based on the premise that parents have the primary responsibility of financing their children's education. Independent students will fall into one of the following categories.

I. Students are automatically independent and therefore not required to submit parental data if they:

   a. Are 24 years old and older by Dec 31 of award year or
   b. Are orphans or wards of the court, or
   c. Are veterans of the armed forces, or
   d. Have legal dependents (other than a spouse), or
   e. Are a graduate or professional student, or
   f. Are married, or
   g. A student who has other unusual circumstances.

## SATISFACTORY PROGRESS

To be eligible to receive or remain eligible to receive financial aid, students must maintain "satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of each 12 month period of enrollment.

In general a student attending full-time must pass 24 hours each year and maintain the minimum grade point ratio as outlined.

| Quality Hours Plus Transfer Hours | Grade Point Ratio for Continuance (on probation) | Grade Point Ratio for Continuance (without probation) |
|---|---|---|
| 0-39 | 1.100 | 1.300 |

| | | |
|---|---|---|
| 40-69 | 1.400 | 1.600 |
| 70-99 | 1.700 | 1.800 |
| 100 & above | 1.900 | 2.000 |

When mitigating circumstances exist, students whose aid is terminated because of failure to meet satisfactory progress standards may reapply by contacting the Financial Aid Committee in writing at the following address:

Chair
The Citadel Financial Aid Committee
c/o Office of Financial Aid and Scholarships
The Citadel
171 Moultrie Street
Charleston, SC 29409

## FINANCIAL AID REFUND AND REPAYMENT POLICY

### I. Refunds

Financial aid recipients who withdraw from school are eligible to receive only that portion of the institutionally determined refund (see the Expenses section of this catalog) which exceeds the financial aid received. This policy also encompasses students on whose behalf a parent has borrowed a Title IV loan. Refunds will be returned to the programs from which the student received aid. The refund amount will be determined by the larger of:

- Appendix A to the General Provisions regulations (part 668) or
- The Institution's refund policy or
- A statutory prorata calculation in the case of a student attending the institution for the first time whose withdrawal date is on or before the 60% point in time in the period of enrollment for which the student has been charged.

### II. Repayments

Regarding cash refunds received prior to withdrawal, if a student's non-instructional educational expenses (allowances as prescribed below) incurred up to the time of withdrawal exceeded the amount of cash disbursement, the student does not owe a repayment. If cash disbursed exceeds the non-instructional costs of education incurred up to the time of withdrawal, the student does owe a repayment. This repayment is the difference between expenses incurred and the actual cash refund received. Non-instructional expenses are determined by calculating the percentage of room, board, books, supplies, travel, and personal expenses incurred during the portion of the term a student is enrolled. Off-campus board and personal expenses are prorated on a weekly basis. There is no proration of on-campus room charges. A percentage of books, supplies, and travel costs are allowed based on length of enrollment.

### III. Student aid accounts to be refunded and repaid

Once the amounts to be refunded and/or repaid are determined, the aid programs from which the student received funds will be allocated in the following order.

- unsubsidized Federal Stafford/Ford loans;
- subsidized Federal Stafford/Ford loans;
- Federal PLUS loans received on behalf of the student;
- Federal Direct Stafford/Ford loans;
- Federal Direct PLUS loans received on behalf of the student;
- Federal Perkins loans;
- Federal Pell Grants;
- Federal SEOG Grants;
- other Title IV programs;
- other federal, state, private, or institutional student financial assistance received by the student for which refunds are required;
- the student.

Examples of this policy are available to students upon request from the financial aid office.

## OTHER ASSISTANCE

**Vocational Rehabilitation Scholarships:** This program provides for education and training if the student has a physical or mental disability which is a substantial handicap to employment and there exists reasonable expectation that vocational rehabilitation services may lead to gainful employment. Additional information is available through the Department of Vocational Rehabilitation in the student's home state.

**Sirrine Scholarship:** All Greenville County residents are urged to apply for this scholarship given to individuals who want to continue their education. Winners are selected on the basis of financial need and academic ability. Applications are available in the high school counselor's office.

**Methodist Student Loan Fund:** Loans of up to $700 per year at an interest rate of 3 percent per annum are provided by the Methodist Student Loan Fund. Repayment must start within six months after discontinuing full-time attendance. For applications, contact the Office of Loans and Scholarships, Board of Higher Education and Ministry, The United Methodist Church, P.O. Box 871, Nashville, TN 37202, or Financial Aid Office, The Citadel.

**Lutheran Brotherhood Loan:** Loans of up to $2,500 are available for Lutheran undergraduate students. Repayment begins six months after the date of graduation or withdrawal from school. For applications, contact Student Loan Coordinator, Lutheran Brotherhood, 701 Second Ave. South, Minneapolis, MN 55402.

**Knights of Columbus:** Loans of up to $1,500 are available for members and dependents of the Knights of Columbus. Repayment begins six months after graduation or withdrawal from school. For applications, contact Knights of Columbus, Student Loan Committee, P.O. Drawer 1670, New Haven, CT 06507.

**College Budget Plans:** Academic Management Service (A.M.S.) is one of a number of special plans by many of the larger banks which will pay college fees when due and arrange for a parent or sponsor to repay on a prearranged monthly budget schedule extending over the year. Contact The Citadel Treasurer's Office for information.

**Veterans' Services:** Veterans' services are administered under the umbrella of Student Financial Aid at The Citadel. Veterans' services are intended to meet the needs of students receiving benefits under Chapter 35 (Dependents; Chapter 32 (VEAP); the old G.I. Bill (Chapter 34); the new Montgomery G.I. Bill (Chapter 30); Chapter 31 (Vocational Rehabilitation); and Chapter 106, which deals with reservists from all branches of the service. Veterans who feel they have an entitlement should check with their local VA Office, the Regional Office in Columbia (1-800-827-1000), or the VA Coordinator at The Citadel.

An applicant should contact the VA Coordinator in the Financial Aid Office at The Citadel well in advance of the anticipated admission date so that the necessary documents may be obtained in order to certify attendance with the VA. All veterans and dependents receiving VA Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule card. Any changes in the veteran's course of study should be cleared with the VA Coordinator in the Financial Aid Office to ensure continuation of benefits. Any reduction in course load should be reported immediately to avoid overpayment. Transfer students are reminded that the office must have copies of all transcript evaluations made by the Records Office before certification can be made to the Veterans' Administration for payment.

In determining eligibility for VA educational funds, the satisfactory progress chart on page 2 of this publication will apply to all veterans and dependents receiving VA benefits for their education at The Citadel.

## GRADUATE INFORMATION

**Assistantships:** Teaching and Research Assistantships are available on a limited basis through academic departments. For information contact the appropriate department chair.

**Loans:** Students who are enrolled at least half-time (3 credit hours) are eligible for student loans.

**The Federal Direct Loan Program:** The Direct Loan program (formerly GSL) provides students with long term low interest loans. Both subsidized and unsubsidized loans are available. The federal government "subsidizes" a loan by paying the interest while the student is in school. For an unsubsidized loan the government does not provide the subsidy; therefore, interest on the loan accrues while the student is enrolled. Another difference between these two loans is that the family contribution is taken into consideration when determining a student's need for a subsidized loan. Eligibility for an unsubsidized loan does not consider the family contribution.

A graduate student may borrow up to $8,500 annually with an aggregate limit of $65,000, including amounts borrowed as an undergraduate student.

The interest rate on a Stafford Loan for students borrowing for the first time after October 1, 1992 is variable, annually, and is tied to the 91-day Treasury bill. The maximum interest rate is 8.25%.

**GradEXCEL Education Loans:** GradEXCEL offers graduate and professional students a signature loan based on projected future earnings, rather than on current income and credit record. The annual loan amounts range from $2,000 to $7,500 when students borrow on their own, but students may borrow up to $20,000 with a coborrower whose credit record is sound. Borrowers can choose between two interest rate options and have three repayment options: deferred principal and interest payments while enrolled, (2) deferred principal payments while enrolled, (3) fixed monthly payments of principal and interest. Repayment periods range from 4 to 20 years, depending on the amount borrowed. For more information or for a GradEXCEL application, please call Nellie Mae at 1-800-634-9308 or (617) 849-3447, or write to: Nellie Mae, GradExcel Department, 50 Braintree Hill Park, Suite 300, Braintree, MA 02184.

## CITADEL SCHOLARSHIPS

*The Captain William Forman Abernethy Memorial Scholarship* has a value of $1,000. It is awarded annually to the rising senior who has shown the greatest determination and perseverance to improve as a cadet and a student during the years spent at The Citadel.

*The Abney Foundation Scholarships* were established in 1990 with a significant gift from that foundation. Recipients must demonstrate financial need in addition to showing "academic potential."

*The Joe E. Adams, Sr., Class of 1922, Scholarship* was established in his memory by his son, Joe E. Adams, Jr., Class of 1955. This award is restricted to members (or dependents of members) of the Main Street United Methodist Church, Greenwood, South Carolina. Its value is approximately $1,000 a year for four years.

*The Joseph D. Aiken Scholarships* cover all expenses, as outlined in the catalog, for the first three years and are supported by a trust fund made possible by a bequest of the late Mr. Joseph D. Aiken. They are limited to applicants from the New England states, with some preference given to Rhode Island and Connecticut residents.

*The Maurice Albright Scholarship Fund* was established in 1985 through a contribution from Thomas A. Albright, Class of 1978. The fund is named in memory of Maurice Albright.

*The Lillian Malone and her son, Edgar Stanton Alexander, Scholarship* was established by Mr. Dietrich Biemann Alexander, Class of 1922. This scholarship is restricted to a cadet from Greenwood County, South Carolina.

*The Harold B. Alexander Scholarship Fund* was established in 1991 with a gift from Mr. and Mrs. Gerald J. Teitman. The recipient of this scholarship shall be a U.S. citizen, a liberal arts major, and a rising junior with a minimum grade point average of 3.00.

*The Saul Alexander Scholarship* was established by the Saul Alexander Foundation Committee. The beneficiary shall possess those attributes of ability, character, temperament, and personality that are in accord with the traditionally high standards of The Citadel.

*The William A. Altman, Jr., Scholarship* was established in 1982 by William A. Altman, Jr., Class of 1931. The scholarship is restricted to residents of South

Carolina or the child of a South Carolina native who has financial need.

*The Marietta V. and Howard W. Alton, Jr., Scholarship(s)* were established in 1991 by Marietta V. Alton to honor Howard W. Alton, Jr., Class of 1959. Preference is given to cadets who have participated in high school varsity sports and who are residents of Texas, Arkansas, or Arizona. Also, preference shall be given to candidates whose parents are in or who have been retired from the U.S. Armed Forces.

*The Citadel Alumni License Plate Scholarship:* In 1994, a scholarship trust fund was established from the proceeds from the sale of specially designed Citadel-South Carolina license plates for automobiles. This fund was established by the General Assembly of the State of South Carolina.

*The American Public Works Association Scholarship* was established by the South Carolina chapter of that association. It pays $500 a year to a senior civil engineering student who has financial need and is a resident of South Carolina.

*The General Wallace E. Anderson Scholarships* were established by contributions from friends and family of Major General Anderson, Class of 1934. These scholarships are restricted to cadet physics majors and are awarded upon recommendations from the Department of Physics.

*The Fred J. Attaway, III, Scholarship* was established by Mr. and Mrs. Fred J. Attaway, Jr., friends, and family of Fred J. Attaway, Citadel, Class of 1972. Scholarships are available to cadets who possess attributes in accord with high standards of The Citadel.

*The Major James W. Ayers Scholarship* is in memory of Major Ayers, Class of 1957, who lost his life in the service of his country in Vietnam. It is given to an entering freshman, with preference to a resident of Berkeley County, with financial need and an interest in becoming a member of the United States Marine Corps upon graduation. The value is up to $500 a year for four years.

*The M. Ralph Bagnal, Jr., Scholarship* was established in 1983 by the Builders' Association of the Midlands, located in Columbia, South Carolina, in memory of Mr. M. Ralph Bagnal, Jr., Class of 1947. The scholarship is restricted to incoming freshman cadets from the state of South Carolina and preferably from the Columbia area. The recipient should be active in the framework of the Citadel Religious Community.

*The Citadel Band Scholarship* is established by the Board of Visitors. The scholarship(s) come from funds invested by the State Treasurer. These scholarshi are for cadets who are members of The Citadel Band. Cadets receiving t scholarship will be recommended by The Citadel Director of Music.

*The Barnhill-Harley Scholarships* were bequeathed by the estate of Edwa Stanley Barnhill for qualified and deserving students. The fund is named memory of Edward S. Barnfill, a friend of The Citadel, and the Harley fami Mr. Barnhill's mother's maiden name.

*The Baruch Scholarships*, with a value of $500 to $1,000 each for one year, we inaugurated from the income of a fund donated to The Citadel by the late M Bernard Baruch. These scholarships are awarded annually to juniors and senio Attributes to be considered are scholarship, student or extracurricular activiti leadershp, integrity, industry, respect of fellow cadets, evidence of ability a responsibility, and financial need.

*The Robert D. and Judith M. Bates Scholarships* have been endowed to ass financially disadvantaged students who require financial assistance and are uppercla cadets. Half of all awards are to be made to minority students who are U.S. citize

*The David B. and Susan S. Bell Scholarship Fund:* This scholarship fund w begun with a generous donation from David B. Bell, Class of 1971, and his wi Preference shall be given to a member of the tennis team with high academ standing.

*The Annie Wysong Benson - Nana Mae Richter Mizell Scholarship* was esta lished in 1983 by John C. Benson, Class of 1943, and his wife, Sara Katharine, honor and memory of their mothers. This scholarship is restricted to cadets majori in business administration or political science who are average students (i.e. hi C's to medium B's). Fifth year students may be considered. If a rising junior h three siblings who have graduated from The Citadel or two siblings who ha graduated and a third in the Corps, he or she will automatically qualify excludi the above restrictions. The recipient should be active within the framework of t Citadel Religious Community.

*The W. W. Benson Scholarship* pays all expenses, as outlined in the catalo Named in memory of the late Major W. W. Benson, Class of 1907, it is support by his friends from Greenwood County, South Carolina. Preference is given athletes from the Greenwood area or from South Carolina.

*The Bethea Scholarship* was established by Mrs. Orina B. Bethea in memory of W. Thad Bethea, Sr., S. Legare Bethea, W. Thad Bethea, Jr, and W. Thad Bethea, III, all graduates of The Citadel. Scholarships are available to cadets who possess attributes in accord with the high standards of The Citadel.

*The Birmingham Area Citadel Club Scholarship* was created by contributions and matching gifts donated by the Birmingham Area Citadel Club. The scholarship was established in April 1980. The recipient must be a resident of Birmingham, Jefferson, or surrounding counties.

*The Oliver J. Bond Scholarship* is supported by the income from a trust fund established by alumni as a memorial to the late Colonel Oliver J. Bond, President of The Citadel, 1908-1931. The present value is $1,000 a year for four years.

*The William P. Bowers Scholarships* were established by the late Mr. Bowers, Class of 1918. They pay $1,000 a year and are awarded to South Carolina cadets, with a preference to residents of Hampton or adjoining counties.

*The Alton H. Bryant Memorial Scholarships* have a value of $1,000 a year for four years. They are in memory of Lieutenant Alton H. Bryant, a graduate of the Class of 1940, who lost his life in the service of his country. Applicants are limited to residents of Orangeburg County, South Carolina.

*The Karl Irvin Buse Scholarship* was established by a bequest of Karl Irving Buse in 1984. It is to be awarded to a cadet who has financial need and who exhibits scholarship, athletic ability, extracurricular activities, leadership, integrity, industry, respect of fellow cadets, and evidence of responsibility.

*The Burke High School of Charleston Scholarship* is a full academic scholarship. The principal of Burke High School will nominate minority students for this scholarship.

*The Byrnes-Prioleau Scholarship* was initiated in 1986 as the result of contributions from Colonel William F. Prioleau, Jr., Class of 1943, in memory of Justice James Byrnes and William F. Prioleau, Jr.'s, father, William F. Prioleau, Sr.

*The Cadet Insurance Aid* plan provides scholarships maintained by the Cadet Insurance Aid Plan from revenue derived from the dividends of life insurance policies voluntarily purchased by members of graduating classes since 1953. This fund supports both athletic and academic scholarships.

*The Citadel Cadet Store and The Citadel Gift Shop Scholarships* provide annually two $1,500 scholarships that are awarded to upperclass cadets who have cumulative GPAs of 2.5 or higher and who are involved in the student activities of cadet life. These academic scholarships are supported from the earnings of the Cadet Store and Gift Shop respectively.

*The Richard P. Cardwell Scholarships* were established by General Eugene F. Cardwell and the late Mrs. Cardwell in memory of their son, Cadet Richard P. Cardwell, a member of the Class of 1957. They are awarded each year to members of the Corps of Cadets from SC, NC, FL, VI, TX, NM, IN, AL, MS, or GA and have a value of $500 each year for one year.

*The Carrigg Scholarships* were established by a bequest to The Citadel by Stephen L. Deutsch and have a value of $1,000 a year for four years.

*The Fred J. Carter Scholarship:* This scholarship was established in 1994 by his widow, Nancy F. (Carter) Reynolds, his mother-in-law, Anita H. Franklin, as well as other family members to remember this Class of 1967 graduate, who was killed when his F-4 Phantom jet crashed in Vietnam in 1969. The recipient must be an Air Force ROTC student who is a resident of South Carolina. Preference shall be given to cadets with financial need and those majoring in political science.

*The Frank W. Cayce III Memorial Scholarships* are four-year scholarships and pay $1,000 a year. These scholarships were made possible by the late Mrs. Zulale J. Dowling, who bequeathed to The Citadel her entire estate for the purpose of establishing an educational scholarship fund in memory of her grandson, Frank W. Cayce, Class of 1963, who lost his life while representing The Citadel on the Parachute Team.

*The Central North Carolina Citadel Scholarship* was established in 1987 by Wallace Andrew Kennedy, Jr., Class of 1958. A candidate shall be a resident of one of the central North Carolina counties as named in the Deed of Trust and supported by The Citadel Club of the Piedmont Area of North Carolina. If no qualified candidate is available from these counties, then a resident from other counties of North Carolina may be considered. The candidate shall be well-rounded and possess an average or better scholastic record. Awards are limited to $2,000 per year per recipient and may be renewed yearly if the student is deemed worthy. Financial need is not a criteria, and the scholarship is not available to athletes.

*The Cheek-Lewandowski Scholarship* was initiated by Mr. N.B. Cheek, Jr. The donor shall select a three or more person committee to choose candidates, with preference given to graduates of Oakridge Military Academy.

*The Citadel Development Foundation Scholarships* are awarded from funds provided by the Foundation each year. These scholarships are open to both entering freshmen and currently enrolled students.

*The Citadel Gospel Choir Scholarship* is available to cadets who posses attributes in accord with the high standards of The Citadel. Preference is given to an upperclass cadet who is a member of The Citadel Gospel Choir and maintains a GPR of at least 2.8.

*The Citadel Ryder Cup Scholarship* is awarded annually to a member of The Citadel Golf Team. The fund was initiated as a result of a contribution from Regency Productions-Hyatt Corporation for the use of our dining facilities to support the food operations for the Ryder Cup Golf Tournament held at Kiawah Island in September 1991.

*The Citadel Scholars Scholarship Program* is supported by The Citadel Development Foundation to attract outstanding students. Twelve scholarships are awarded each year to residents of South Carolina and six to residents of other states. These scholarships pay all expenses, as listed in the catalog, for four years. Selections are made by the Committee on Scholarships of The Citadel and are based on scholastic and leadership ability and a personal interview. Several of these scholarships have been fully endowed by private donations in memory or honor of individuals or organizations. These are: Edwin P. Latimer, E. Leigh Winslow, Leon R. Masters, Horace L. Tilghman (2), The Citadel Class of 1939 (4).

*The Citadel Women's Club Scholarship Fund* was established with monies earned through fundraisers conducted by the members of this nonprofit organization. The recipient of this scholarship must possess those attributes of ability, character, temperament, and personality that are in accord with the traditionally high standards of The Citadel. Also the recipient must be a United States citizen, have successfully completed three semesters, and have a GPR of at least 2.7.

*The Mark W. Clark Scholarship* is $2,000 a year award for four years and is supported jointly from contributions by the late General Mark W. Clark, President Emeritus of The Citadel, and from a trust fund established in his honor by the alumni.

*The Renie Clark Scholarship* is a $1,500 scholarship. It is awarded each year to a member of the senior class. This scholarship is a memorial to the late Mrs. Mark W. Clark.

*The Class of 1919 Scholarship Fund* was established by members of the Class of 1919 to support academic excellence and to supplement other scholarship funds.

*The Class of 1934 Scholarship* was established through the efforts of Mr. Jesse T. Reese, Class of 1934, and fellow classmates in February 1980 as a perpetual fund in the name of the Class of 1934. The recipient should be a resident or child of a resident of South Carolina with financial need.

*The Class of 1935 Scholarship* was established through The Citadel Development Foundation to assist needy freshmen. In selecting a recipient, high school academic records and extracurricular activities will be used. With all things being equal, preference will be given to blood relationship to a member of the Class of 1935.

*The Class of 1967 Scholarship* was established in 1982 by the Class of 1967. It is restricted in order of priority to a child of a deceased member of the Class of 1967, a child of a member of the Class of 1967, a child of an alumnus, or any qualified applicant.

*The Class of 1975 Scholarship* was established by the graduating class of that year. It is to be awarded to the rising senior cadet who is academically in the exact middle of the senior class. The award pays approximately $100.

*The Class of 1982 Scholarships* should be awarded to cadets who possess those attributes of ability, character, temperament, and personality that are in accord with traditionally high standards of The Citadel and to cadets who also demonstrate financial need and attain a GPR of at least 2.0.

*The James K. Coleman Prizes for Excellence in American Constitutional Law* were established by Professor Neil H. Alford, Class of 1940, to recognize Citadel students who excel in the area of American Constitutional Law and who are members of The Citadel Inn of Court.

*The Matthew Allen Combs Memorial Scholarship* was established by Mr. and Mrs. Robert G. Combs in memory of their late son. This scholarship is restricted to graduates of Lexington High School, Lexington, South Carolina. It has a monetary value of $500.

*The John Murray Compton Scholarship* was established in 1986 in memory of the late John Murray Compton, Class of 1943, by his widow, Mary Ellen C.

Compton, and family. The recipient must possess those attributes of ability, character, temperament, and personality that are in accord with the traditionally high standards of The Citadel, must be a resident of Summerville, South Carolina, but need not be a "Straight A" student. Should a student meeting the criteria not be available, a student from the surrounding Summerville area will be considered.

*The William Walter Cone Scholarship:* Family members of William Walter Cone, Class of 1924, established this scholarship fund in 1991, for a cadet who is preferably from Saluda County, South Carolina, and has demonstrated financial need.

*The Matthew G. Crittenden Scholarship* was established from donations of family, classmates, and friends. Cadet Crittenden was a sophomore in "H" Company majoring in premedicine, who died the summer of 1995 as a result of a brain aneurysm. The scholarship recipient should be a rising junior who has earned Gold Stars and who demonstrates personal responsibility and purposeful vision in all aspects of life.

*The Crouch-Lee Scholarships* have a value of $500 a year for four years. The James R. Crouch award was founded in 1925 by the late Mr. Crouch, Class of 1899, of Greenville, South Carolina. The William States Lee Scholarship was founded the same year by the late Mr. Lee, Class of 1894, of Charlotte, North Carolina. The deeds provided that recipients should be limited to residents of South Carolina.

*The Bessie L. Daniel Scholarship* was established by William R. Daniel, Class of 1959, in honor of his mother. This scholarship is restricted to cadets who are United States citizens, from a Protestant community, and active in campus Christian activities. The cadet should possess attributes of ability, character, temperament, and personality that are in accord with the high standards of The Citadel. The scholarship will be divided as follows 50% senior cadet, 30% junior, 20% sophomore.

*The Henry Deas, Jr., Memorial Scholarship* was established by the friends of the late Mr. Henry Deas, Jr., Class of 1938. This award pays $250 in alternate years.

*The William K. and Marion P. Denaro Scholarship Fund* was bequeathed to The Citadel in the estate of Mrs. Denaro of the State of New York. Scholarships from this fund are awarded to cadets with high standards of conduct, integrity, and leadership.

*The Harry S. Dent Americanism Scholarship* was established by U.S. Senator Strom Thurmond, advisor to the John P. Gaty Charitable Trust. It is awarded annually to needy and worthy students. Selection is based on a paper on Americanism, the specific topic of which is announced prior to January 1. Applications must be submitted by December 1, and papers must be submitted by March 1 of the academic year preceding the award.

*The Louie T. Des Champs Memorial Scholarship* was established by Colonel C. A. Des Champs, Class of 1927, in memory of his nephew, Class of 1951. Preference is given to descendants of persons who have served in the armed forces or are residents of California.

*The William J. Detyens Scholarship* was established by Mr. William J. Detyens, successful businessman in the Charleston area. Mr. Detyens named a three-person committee which will make recommendations to The Citadel Scholarship Committee for awards. The first awards will not be made until the year 2001.

*The Dillon County Scholarships* were established by the late Mr. W. Thomas Dillon and are restricted to cadets from Dillon County, South Carolina.

*The Todd L. Dorney Memorial Scholarship* was established by his parents in memory of their son, Class of 1980. This scholarship is awarded each year to a rising senior Army cadet who has been exemplary in military performance. Candidates must be in the top 10% of their Military Science III class with a 3.0 GPR for their junior year. Advanced Camp scores will be evaluated for final selection.

*The William S. Dosher Scholarships* were established by Dr. William S. Dosher and pay $1,000 a year for four years. Preference is given to applicants from Hanover and Brunswick Counties, North Carolina.

*The James W. Duckett Scholarships* are supported by contributions from alumni in honor of Major General James W. Duckett, past President of The Citadel. These scholarships pay $500 a year for four years.

*The Robert J. Dukes Scholarship* was initiated from contributions of Dr. Robert J. Dukes, Jr. The fund is named in memory of Dr. Dukes' father, Robert J. Dukes, Class of 1931. Scholarships will be awarded to recipients possessing the attributes of ability, character, temperament, and personality that are in accord with traditionally high standards of The Citadel.

*The David M. Dunning Scholarship* was established by Dr. Peter E. Gutierrez as a memorial to Lieutenant Dunning, Class of 1980. It pays $500 each year, and preference is given to residents of Lake County, Indiana, and then to residents of the State of Indiana.

*The duPont Scholarships* were established by the late Mrs. Jessie Ball duPont and subsequently increased by a contribution from the Jessie Ball duPont Religious, Charitable, and Educational Fund.

*The Captain Timothy Allen Dusenbury, Class of 1974, Memorial Scholarship* was established by his widow and is restricted to a senior with a Marine Corps Option NROTC contract. Preference is given to D Company commanders and/or Summerall Guards from the South.

*The Senior Private I. B. Early, Class of 1951, Scholarship* was established by William B. Mills, Class of 1951, and his wife Annette T. Mills, in honor of I. B. Early. It is awarded to a cadet believed to possess attributes of ability, character, temperament, and personality that are in accord with the high standards of The Citadel. First consideration will be given to a rising senior private who has financial need and is a North Carolina resident, preferably from the county of Davidson, then in no specific order, the counties of Guilford, Randolph, Montgomery, Alamance, Chatham, Wilkes, Iredell, Stanly, Surry, Rockingham, Moore, Cumberland, Lee, Person, Richmond, Union, Orange, Yadkin, Davie, Alexander and Catawba. If no qualified candidate is available, a resident of North Carolina will be considered.

If no beneficiary qualifies from North Carolina, then a resident from Florida will be considered. Need is not to be the sole or determining factor; however, athletes are excluded.

*The Clarence W. Edward Memorial Scholarship* was established from a gift from the estate of the late Clarence W. Edwards. Scholarships from this fund are unrestricted.

*The Milton L. Eliades Memorial Scholarship* fund was established by three classmates of the late Major Eliades, Class of 1964. It is available to upperclass cadets.

*The Martha Lee and Columbus Jefferson Ellison Scholarship* was established by Dr. Reuben Y. Ellison in 1986 in memory of his parents. In selecting a recipient, financial need and South Carolina residency are the primary requirements.

*The J.O. Estes Scholarships* were established by Mr. Estes to be awarded to needy Citadel students from Anderson or Greenville Counties, South Carolina.

*The Captain Joe Wofford Eubanks Memorial Scholarship* was established by the parents of the late Captain Joe Wofford Eubanks, Class of 1969, who lost his life in the service of his country in Vietnam. It is restricted to an out-of-state cadet majoring in history and having financial need.

*The Thomas C. Evans, Jr., Memorial Scholarship* was established through a pledge by the friends of Thomas C. Evans, Citadel Class of 1958. Scholarships are available to cadets majoring in Civil Engineering.

*The Thomas Holland Evans Memorial Scholarship* was established by Mr. and Mrs. Thomas Evans in memory of their son, Lieutenant Thomas Holland Evans, Class of 1968, who lost his life while in the service of his country. It is given to an entering freshman who is in financial need. It has a value of $1,000 a year for four years.

*The Exchange Club of Charleston Service Scholarships* are awarded each year to one or two outstanding students from Charleston County.

*The Stephen D. Falkenbury, Sr., and Lillian R. Falkenbury—North Carolina Piedmont Area Scholarship* is awarded based upon recommendations of the Charlotte, North Carolina, Area Citadel Club. This scholarship was established by LTC Steve Falkenbury, Jr., Citadel Class of 1949 in memory of his parent's LT USCG Stephen D. Falkenbury, Sr., and his mother Lillian Falkenbury in 1969. Preference is given to applicants from middle-income families where both parents work or from single parent families. In addition to North Carolina residents, cadets from the New York metropolitan area, with Richmond County preferred, may also be selected.

*The Charlie M. Forrest, Jr., Scholarship* was established through contributions from Charlie M. Forrest, Jr., a friend of The Citadel.

*The Four "S" Scholarship* was initiated by a member of the Class of 1942. The scholarship recipients should have a superior academic record and be a member of The Citadel Boxing Team.

*The Edward M. Foxworth Scholarship* was established in 1983 through a generous gift from Ruth G. Foxworth, the wife of Edward M. Foxworth, Class of 1931. The recipient shall be an incoming freshman from South Carolina with character, integrity, a record of concerned citizenship, an outstanding high school record, and financial need. This scholarship may be continued for the sophomore, junior, and senior years if the student maintains a worthy record.

*The Robert Frank Freeman and Robert Frank Freeman, Jr., Scholarship Fund:* With a gift from Elizabeth Freeman, in 1994 this scholarship fund was established. Mrs. Freeman is the widow of Robert F. Freeman, Class of 1940, and the mother of the late Robert Frank Freeman, Jr. Preference will be given to a "young person from the South."

*The Lt. John L. Fuller, Jr., Scholarship* was established in 1983 in honor of Lt. John L. Fuller, Jr., Class of 1966, who was killed in Vietnam while serving in the United States Marine Corps. This scholarship has been made possible by his classmates and friends. It is open to any cadet who needs financial assistance.

*The Brian E. Gallogly Scholarship(s):* This fund was established by the parents of the late Brian E. Gallogly, Class of 1994, Mr. and Mrs. Eugene Gallogly of Columbia, South Carolina, in memory of their son who was killed in an automobile accident. The recipient should be a member of Delta Company who is from Columbia, South Carolina.

*The General Mills/ARAMARK Scholarship* was initiated in 1993. Contributions from cereal sales support this scholarship.

*The Helen English Gergulis, Katerine E. and George J. Gergulis Memorial Scholarship* was established by Col. John G. Gergulis, Ret., Class of 1959, in memory of his wife, Helen, and his parents. Beneficiaries shall be a cadet in the second full year at The Citadel who has maintained a GPR of 2.5 or higher as a freshman, with preference given to a resident of South Carolina, Florida, Georgia, or North Carolina.

*The Capt. & Mrs. L.J. Grant-Alexander Bagpipe Scholarship.* Prior to his death on 5 June 1995, Robert E. Brady, Jr., Class of 1976, made arrangements to establish the Grant-Alexander Bagpipe Scholarship. The recipient should be a member of The Citadel Pipe Band with demonstrated financial need, achieve a 2.2 GPR, and have an excellent military rating from the Commandant of Cadets.

*The Greenville-Piedmont Citadel Club Scholarship,* with a value of $500, is based upon need and is given annually to an outstanding young person from Greenville County, South Carolina.

*The Anthony D. Griffin Scholarship* was established in 1983 in honor of the late Anthony David Griffin, Class of 1974, who was killed while flying for the Navy. This scholarship was made possible through pledges of classmates, family, and friends. The scholarship is restricted to senior cadets, taking into consideration financial need and membership in the Summerall Guards or Junior Sword Drill (preferably not the commander of either unit).

*The James A. and Jessie Lawson Grimsley, Jr., Scholarship* has a value of no less than $2,000 a year for four years. It is supported by the income from a trust fund established by alumni in honor of Major General James A. Grimsley, Jr., Class of 1942 and former President of The Citadel.

*The Peter E. Gutierrez, M. D., Indiana Scholarship* was established by Dr. Gutierrez, Class of 1948. It pays $500 a year for four years to a resident from Indiana, preferably from Lake County.

*The Ambrose G. Hampton, Sr., Scholarship in Civil Engineering Fund* was established by the Hampton family for this Class of 1921 graduate. Scholarships from this fund are awarded to sophomore civil engineering majors who have a grade point ratio of at least 2.5. Evidence of financial need is also considered.

*The Mamie Gulledge Lybrand Harley Scholarship* was established by Mamie G.L. Harley in memory of her husband. The recipient of the scholarship should have financial need.

*The Hugh P. Harris Scholarship*s were established in honor of the late General Hugh P. Harris, past President of The Citadel. They pay $500 a year for four years.

*The William L. Harris - G.E. College Bowl Scholarships* was established in 1970 as the result of cadets participating in a G.E.-sponsored competition and winning prize money. It is named in recognition of Col. Harris' long and distinguished career as professor, dean, faculty representative for intercollegiate athletics, advisor to the Corps of Cadets, and coach of The Citadel G.E. College Bowl team in 1969.

*The Chester E. Hatch, Jr., Memorial Scholarships* were established by the widow of Mr. Hatch, Class of 1937. They pay $500 a year to juniors or seniors majoring in chemistry.

*The Alvin F. Heinsohn Scholarship* was established through the last will and testament of Mr. Alvin F. Heinsohn. Scholarships are available to qualified individuals residing in the County of Charleston with preference being given to children of past employees of Raybestos Manhattan.

*The Jonas S. Heiss and Neal C. Heiss Scholarship* was established from the estate of Mrs. Heiss, who died 26 December 1991. Col. Jonas S. Heiss, Class of 1926, died 6 December 1990. The scholarship is given to natives of South Carolina with financial need.

*The John M.J. Holliday Scholarship* was established in 1983 by John M.J. Holliday, Class of 1936, and past chair of The Citadel Board of Visitors. The scholarship is restricted to incoming freshmen who are South Carolina residents, and preference is given to students from the Pee-Dee area. Demonstrated scholastic abilities and financial need are considered. This scholarship may be continued for the sophomore, junior, and senior years if the student maintains a worthy record.

*The James L. Hood, III, Memorial Scholarship* was established by Mrs. Hood as a memorial to her husband, Class of 1971. The award has a value of up to $1,000 a year for four years. It is restricted to applicants from Greenville County, South Carolina.

*The Toney B. Jackson Scholarships*, established by the late Mr. Toney B. Jackson of the Class of 1915, are given to residents of South Carolina who are members of the sophomore class. These scholarships have a value of up to $500 a year for one year.

*The Jenkinson-Haynsworth Scholarship* was established in 1987 by William E. Jenkinson, W.E. Jenkinson, III, Gordon B. Jenkinson, and Haynsworth M. Jenkinson. The recipient should be a resident of Williamsburg County, South Carolina, with financial need. If no candidate is available from Williamsburg county, then a South Carolina resident or a child of a South Carolina native with financial need may be considered.

*The Dr. Robert Russell Jeter and John Randolph Jeter Scholarship* was established in 1987 by Colonel John R. Jeter, Class of 1925. The recipient of the scholarship shall be selected based on the attributes of ability, character, temperament, and personality that are in accord with the high standards of The Citadel. Awards will be equally divided between cadets engaged in a premedical academic program and cadets who are participating in the intercollegiate football program.

*The Colonel Robert Coleman Jeter Scholarship* was established in 1987 by a bequest of Mrs. Mary Fant H. Jeter. Awards will be equally divided between the academic and athletic programs of the college.

*The David M. Johns Scholarship Fund:* Mrs. Joan C. Johns in 1994 made a gift to The Citadel to establish a scholarship fund in memory of her late husband, who served with distinction in World War II and the Korean War. Preference will be given to a student who chooses a career in the U.S. Army.

*The Charles and G.P. Joseph Scholarship* in the amount of more than $250,000 was established in 1996 per the terms of the will of Dr. Gabriel P. Joseph, Class of 1942, and through the sale of real estate in Myrtle Beach, S.C., deeded to The Citadel. Recipients will be possessed of those attributes of ability, character, temperament, and personality that are in accord with traditionally high standards of The Citadel. The first scholarship will be awarded in 1998.

*The Josias Family Scholarship* was established in 1989 by Steven L. Josias, Class of 1970, in honor of his family. This scholarship gives preference to residents of the states of New York and Florida and cadets who maintain a 3.0 or better grade point average.

*The Paul J. Kingston Scholarship* was established by Mrs. Paul J. Kingston and family to assist a needy junior or senior majoring in political science.

*The A. John Knebel and Annie Dadin Knebel Scholarship Loan Fund* was established in 1983 through a bequest from the will of the late Annie Dadin Knebel. Rising seniors are given preference, but loans may be made to other cadets or entering students who demonstrate worthiness of such a loan.

*The John Patrick Knox Scholarship* was established by his classmates in the Class of 1969 in memory of John Patrick Knox, who was killed in 1967. The scholarship is to be given every fourth year or each year that the interest reaches $300. Recipients shall be freshmen cadets.

*The Marie A. Kohl and Robert L. Kohl, Jr., Scholarship Fund* was initiated in 1993 by Nancy S. Kohl and Daniel J. Kohl. The fund is in memory of the parents of Daniel Kohl. The scholarship is available to a cadet in one of the upper three classes who is a business administration major and holds rank in the Corps of Cadets. The first award was in 1995.

*The Charles A. Laffitte Memorial Scholarship* fund was originally established by the late Colonel Charles A. Laffitte, Class of 1929 and a member of the Board of Visitors, and his family. The awards of $500 to $1,000 a year are made to residents of Allendale and Hampton Counties, and need is a major consideration.

*The Walter Earle Larisey, Jr., Scholarship Fund* was initiated in 1988 as the result of a contribution by his son, Dr. Walter Earle Larisey III, Class of 1968. The fund is named in memory of the donor's father, Walter Earle Larisey, Jr. Scholarships are available to cadets who possess attributes in accord with the high standards of The Citadel. The first award from this fund was made in 1988.

*The Law Engineering Scholarship* was established by Mr. A. J. Glenn, III, P.E., Class of 1953. This $500 award is specified for a senior majoring in civil engineering and recommended by the head of the Department of Civil and Environmental Engineering.

*The O. Harleston and Juliettee M. Lesesne Scholarship* was established by Dr. John M. Lesesne, Class of 1941, in honor of his parents.

*The Freddie Levine Scholarship Fund* was established by funds contributed by friends of Lieutenant Freddie Levine, Class of 1955, who died in the service of his country. One or more scholarships will be awarded annually to cadets in financial need.

*The Mr. Broadus R. Littlejohn, Jr., Scholarship* was established by Broadus R. Littlejohn, Jr., Class of 1949, in honor of his father. The scholarship pays up to $1,000 a year for four years.

T*he Albert I. Love Memorial Scholarship* has a monetary value of up to $500 a year for four years. This scholarship is given to a worthy young person from Colleton or Walterboro Counties, South Carolina.

*The Jacob Clyde Lybrand Memorial Scholarship* was established by Mrs. Mamie G. Harley in memory of her late husband.

*The George N. Magrath Scholarship(s)* were established by a gift in 1993 from the Peoples Federal Savings and Loan Association, Conway, S.C., to honor this member of the Class of 1943. Preference shall be given to cadets from Horry and Florence counties.

*The R. Weldon Mann Scholarship* was donated by Susan H. and Richard W. Mann, Jr., in memory of Mr. Mann's father and in honor of Mr. and Mrs. Mann's son, R. Weldon Mann III, Class of 1995. Scholarships are available to one who is possessed of the attributes of ability, character, temperament, and personality that are in accord with traditionally high standards of The Citadel. Preference shall be given to graduates of the Marine Military Academy in Harligen, Texas, or out-of-state students. The first award will be made in 1998.

*The Brian Crayton Martin Scholarship Fund* was established by a $10,000 contribution from the Martin family. Brian, who lived in Columbia, S.C., graduated from The Citadel in 1993 and was killed in an auto accident 18 February 1996. Brian had three brothers who also graduated from The Citadel. In addition to the usual qualifications, the Deed of Trust specifies that the scholarship recipient should be a resident of South Carolina with demonstrated financial need. Further, the Deed of Trust provides for award of the scholarship(s) to siblings of Brian, should they chose to attend The Citadel. The first award will be made in 1999.

*The David S. McAlister Scholarship* was established in honor of Colonel David S. McAlister in recognition of his many years of service to the athletic program at The Citadel. It pays an athlete up to $1,000 a year for four years.

*The David S. and Dorothy M. McAlister SOCON-Cadet Trust.* The proceeds from a Trust Fund established in honor of Colonel David S. McAlister by the Southern Conference passed to The Citadel in 1988 following the death of Mrs. McAlister. This trust provided that the fund would be distributed to the Board of Visitors following the deaths of both Colonel and Mrs. McAlister. The fund is named in honor of Colonel David S. McAlister, Class of 1924 and Secretary/Treasurer of the Southern Conference; his wife, Mrs. Dorothy Mitchell McAlister; and the benefactors of the trust fund, The Southern Conference Scholarships are available to upperclass cadets in good standing who are in financial need.

*The Gary Milton McCall, Jr., Scholarship* was established by Mr. and Mrs. Gary Milton McCall, Sr., as a memorial to their late son, who would have graduated with the Class of 1987. The scholarship is restricted to students from South Carolina.

*The William Darwin McConnell Memorial Scholarship* was established by a bequest from Mr. McConnell, Class of 1941. The scholarship is restricted to students from South Carolina.

*The McCormick Scholarship* was established in 1995 as a full academic scholarship to attend The Citadel for a student from Fairfield County, South Carolina. Students must graduate from a high school in Fairfield County and maintain a minimum 2.0 GPR their freshman year and a 2.5 in other years for renewal.

*The Robert F. McCrackan Scholarship* was established by bequest of Mr. Walter B. Metts, Class of 1903, in memory of his classmate, Robert F. McCrackan, Class of 1903.

*The Hettie McFadden Scholarship* was established by the Board of Visitors and other friends of the late Hettie McFadden. Preference shall be given to members of The Citadel Pipe Band who are academically proficient. Financial need is a consideration.

*The Arthur Pierson McGee Scholarships* were established by bequests from the late Colonel Arthur Pierson McGee, Class of 1908, and Mrs. McGee. They pay up to $1,500 a year for four years to residents of South Carolina, preferably to cadets from Charleston or Dorchester Counties with athletic ability and financial need.

*The Captain Patrick M. McKenna Scholarship(s) Fund:* Colonel and Mrs. Robert J. McKenna, along with friends, established the Captain Patrick M. McKenna Scholarship(s) in memory of their son, a Class of 1989 graduate, who was killed while serving on active duty in the U.S. Army. Preference shall be given to the child of an active or retired member of the U.S. Army who holds an Army contract. A student from the Columbus, Georgia, area would also receive preference.

*The Lieutenant Colonel Stanley A. McGhan, Class of 1962, Memorial Scholarship* was established in 1981 by his widow and family. It is restricted to an out-of-state student.

*The Colonel Richard Hugh McMaster Memorial Scholarship* fund was established by a bequest from the late Major Richard K. McMaster in memory of his father, Class of 1894. This scholarship is restricted to a cadet from South Carolina.

*The Megonigal Scholarships* were established by a bequest to The Citadel. They have a monetary value of up to $500 for one year.

*The Lanville Henry Mengedoht Scholarship Fund* was established by the Mengedoht Family and Friends in memory of Mr. Mengedoht, Class of 1947. Recipients shall possess those attributes of ability, character, temperament, and personality that are in accord with the traditionally high standards of The Citadel. The first award was made in 1994.

*The Lewie G. and Grace M. Merritt Scholarship* was established by a bequest of the late General Lewie G. Merritt, Class of 1917, who upon graduation entered the Marine Corps. He was a pioneer in Marine Corps aviation and by 1942 was a brigadier general. He was later appointed the first director of the South Carolina Legislative Council.

*The Dr. I. S. H. Metcalf Scholarship* was established by The Citadel's Biology Club. Preference shall be given to currently enrolled biology majors who are rising sophomores, juniors, or seniors, who have a cumulative GPR of 3.000 or greater, and who are American citizens with demonstrated financial need.

*The N. S. Meyer-Raeburn Scholarship* is a $200 scholarship with no restrictions. It is awarded annually and is made possible by an annual gift from the Meyer-Raeburn Foundation.

*The Colonel Jack R. Millar, Jr., Scholarship* was established through contributions from Mrs. Betsy Rogers Millar and R.J.R. Nabisco, Inc. The fund is named in honor of Mrs. Millar's husband, a member of the Class of 1939. Recipients must demonstrate financial need.

*The Harry McCullough Mims, Sr., Scholarship Fund* was initiated by Evelyn Johnston Mims, Dicksie Mims Ward, and Harry McCullough Mims, Jr., Citadel Class of 1963, in the amount of $20,000 in 1993. Recipients of the scholarship are chosen on the basis of ability, character, temperament, and personality in accord with traditionally high standards of The Citadel. Preference is given to a rising senior cadet with an average academic record who demonstrates an enthusiastic interest in civil and environmental engineering as a profession and an interest in highways or transportation, and who participates in departmental activities. Recommendations are made by full-time civil and environmental engineering faculty. Financial need should be major but not a controlling factor. The first award was made in 1995.

*The Miscellaneous Scholarship Fund* is made of contributions given on a one-time basis and designated for scholarships. Awards are made without restrictions.

*The O. Ray Moore Memorial Scholarships* are made possible by a bequest to The Citadel Development Foundation by the late O. Ray Moore, Class of 1922. This fund provides three in-state and five out-of-state four year scholarships which pay the total expenses as listed in the catalog.

*The Moore-Richards Scholarship* was established in memory of the late Marion Latigue Moore, Sr., and Mrs. Jennie Patterson Richards Moore by members of their family. The scholarship is restricted to residents of Sumter and Kershaw Counties, South Carolina.

*The Mark William Motley Memorial Scholarship* was established by his father. It pays $500 to an entering freshman who has financial need and is from the North Carolina, South Carolina area.

*The Mullen Premedical Scholarships*, established by Dr. Donald C. Mullen, Class of 1957, have a value of $500 and are awarded each year to one junior and one senior who are dedicated to becoming physicians, are in the top 25 percent of their classes, and have need.

*The Frank W. Munnerlyn/Citadel Medal of Honor Memorial Scholarship* was established by The Citadel Board of Visitors in 1993 from a generous donation made by Frank W. Munnerlyn, Class of 1935. This scholarship is to be awarded to Medal of Honor winners, their children, grandchildren or children of current active duty or retired members of the U.S. Armed Services who are Citadel graduates.

*The Robert A. Murray Scholarship Class of 1967 Fund* was established by Charles T. Wallace, Class of 1965. Preference will be given to South Carolina residents who demonstrate financial need.

*The G. Morrison Myrick Scholarship* was established by friends and family of G. Morrison Myrick, Class of 1966.

*The 1964 Company "N" Scholarship* was established by classmates from November Company who graduated in 1964. The recipient of this scholarship shall be a member of November Company who has a "C" or better average and whose family has lost financial support.

*The Dennis D. Nicholson, Jr., Scholarship* has a value of $1,500 a year for four years and is supported by the income from a trust fund established by alumni in honor of Colonel Dennis D. Nicholson, Jr., Past Vice President for Development of The Citadel.

*The Jack Page Memorial Scholarship* is awarded each year to an outstanding junior or senior majoring in business administration. The scholarship pays $500 and is sponsored by the National Association of Accountants.

*The Zelma G. Palestrant Scholarship Fund:* This fund was established in honor of the late Citadel librarian, who died of cancer. This is an unrestricted scholarship.

*The Milton A. Pearlstine Maritime Scholarship* was established in 1983 by the South Carolina Ports Authority to honor Milton A. Pearlstine, Class of 1919. The

Pearlstine Scholarship is restricted to students in business or related fields.

*The E.B. Peebles, Jr.,/Dravo Corporation Scholarship* was initiated in 1985 as the result of a pledge from the Dravo Corporation. This fund is named for the donor and in honor of E.B. Peebles, Jr., Class of 1939. Scholarships are available to rising juniors and seniors who have financial need. Preference is given to a student who is associated with the student newspaper.

*The Major General Harry K. Pickett Memorial Scholarships* are made possible by a bequest of the late General Pickett, Class of 1911. These scholarships have a value of $1,000 a year. They are awarded to young person of character who are citizens of the State of South Carolina or children of United States Marines.

*The T.R. Pinson Scholarship* was established in 1985 in memory of the late Thomas R. "Red" Pinson, Class of 1931, by his family and friends. A cadet who has financial need and who is a Greenwood county resident will receive first preference. If none qualifies, then a South Carolina resident will be considered.

*The Pitt Reserve Scholarship* was established by a gift from William R. Nichols in 1997. This scholarship is to be awarded to cadets in financial need who will meet the high standards of The Citadel.

*The General Edwin A. Pollock Scholarship* was established by the Beaufort Citadel Club and friends of General Pollock to honor this Citadel graduate, Class of 1921. The scholarship has a current value of $500 a year for an athlete from the State of South Carolina, and Beaufort County residents are given preference.

*The President's Honorary Scholarships* are awarded each year to outstanding high school graduates and outstanding members of the current junior, sophomore, and freshman classes of The Citadel.

*The John Douglas Prevatt Scholarship* was established by the Francis G. Horne Foundation for an entering freshman in the upper 10 percent of his/her graduating class or with a minimum score of 1200 on the SAT. This award pays all catalog costs for four years. It is limited to students who are residents of North Carolina or South Carolina who are majoring in biology, chemistry, mathematics, or physics. Students majoring in other disciplines but who clearly intend to pursue a career in medicine will be considered. This scholarship is not open to athletes, but musical ability is an asset.

*The Captain Anthony G. Prior Scholarship* was established in memory of Captain Prior, Class of 1964, who lost his life in the service of his country in Vietnam. It is awarded to a needy young person with a strong desire for a military career. The value is up to $500 a year for four years. An average student at The Citadel will be considered, and preference will be given to a student from the northeastern United States.

*The Kentrice Ray Memorial Scholarship* was established through a contribution from Arthur Ray, father of the late Cadet Kentrice Ray, who matriculated with the freshman Class of 1985 and was killed in October 1986.

*The Razor Memorial Scholarship* was established by Mr. Melvin D. Verson, Class of 1948, as a memorial to the late Colonel Charles T. Razor. The scholarship is restricted to electrical engineering majors, preferably from Illinois or Texas.

*The Colonel T.N. Redd Scholarship(s)* were established by James A. Koppenhaver, Class of 1980, to recognize Professor Redd of the Department of English and to provide scholarship support to cadets majoring in English. Recipients of this scholarship will be nominated by Professor Redd.

*The Jesse Timothy Reese Memorial Scholarship* was established by Mr. Jesse T. Reese, Jr., Class of 1934, and Mrs. Reese in memory of their father, a Class of 1904 graduate. This scholarship pays up to $500 a year for four years and is limited to entering freshmen from South Carolina.

*The H. Wallace Reid, Jr., Scholarship* was established by the parents of H. Wallace Reid, Jr., in his memory. Recipients shall be members of *The Sphinx* staff with preference given to the editor.

*The Frances and Tandy Rice Scholarship* was established by Tandy C. Rice, Jr., Class of 1961, in honor of his parents. The scholarship pays up to $1,000 a year to an outstanding premedical junior or senior. Preference is given to students from Tennessee.

*The Joseph Richard Richardson Scholarship* was established with a gift from Mrs. Frances S. Richardson, widow of Joseph Richard Richardson, member of the Class of 1931. Scholarships from this fund are unrestricted.

*The Joseph P. Riley, Sr., Scholarship* was established by Mr. and Mrs. Riley to be awarded each year to a needy Citadel student from the Charleston area.

*The Michael F. Ritz Scholarship(s):* Family and classmates established a scholarship fund in memory of Michael F. Ritz, Class of 1977. Awards will be made to children of members of the Class of 1977 or to members of the senior class who are recommended by the commandant based upon demonstrated leadership.

*The Richard Creech Roberts, Jr., Scholarship* was established from the estate of Mrs. Mildred Parker Roberts in memory of her husband, Richard Creech Roberts, Jr., Class of 1951. Mrs. Roberts died 8 November 1992. The scholarship is awarded on a continuing basis to individuals who are residents of South Carolina and have been residents for at least ten years. The first award from this fund was made in 1995.

*The Richard H. Rogers Scholarship* was established by contributions at the death of Major Richard H. Rogers, Class of 1965. Awards are made without restrictions.

*The David Rubenstine Scholarship* is made possible by Mrs. Rubenstine in memory of her late husband. This is a one-year award.

*The Four "S" Scholarship Fund* was founded by Herbert F. Stackhouse, Sr., with his endowed gift to The Citadel. This scholarship is awarded to an upperclass cadet who has maintained a superior academic record. This award is renewable providing a superior academic record is maintained.

*The Alan C. Saveall Memorial Scholarship* was established through contributions from Mrs. A. Patricia Saveall, classmates, and friends in memory of Alan C. Saveall, Class of 1969. Preference is given to cadets from New England in need of financial aid.

*The Major Richard H. Schmidt Memorial Scholarship Fund* was established by members of Major Schmidt's family. Major Schmidt, Class of 1952, was killed in action in Vietnam. Need is the deciding factor in naming the recipient.

*Lt. Charles J. Schnorf Scholarship* was established by the family and classmates in memory of Lt. Charles J. Schnorf, Class of 1981. There are no restrictions on this scholarship.

*The Anne Seignious Memorial Scholarship Fund* was established by the Class of 1942 in memory of the late Anne Ficken Padgett Seignious, wife of Lieutenant General George M. Seignious II, Class of 1942 and Past President of The Citadel.

*The George M. Seignious II Scholarship* is supported by the income from a trust fund established by alumni in honor of Lieutenant George M. Seignious II, Class of 1942 and Past President of The Citadel.

*The M.S. Self, Class of 1961, Scholarship* was established with a generous gift from Broadus R. Littlejohn, Jr., Class of 1949, as a memorial to M.S. Self, Class of 1961. Scholarships from this fund are unrestricted.

*The Fred B. Shifflet Scholarship Fund* was initiated in 1991 from the estate of Estelle M. Shifflet. The fund is named in honor of First Lieutenant Fred B. Shifflet, Jr. The first award was made in 1997.

*The Rex K. Skanchy Biology Scholarship Fund* was established in 1993 by members of the Biology Department and friends in memory of the late LTC Rex K. Skanchy, laboratory specialist. This scholarship is awarded to juniors or seniors majoring in biology who have a GPR of 2.5 or greater and who have distinguished themselves in extracurricular activities at The Citadel.

*The Smith-Barnett Scholarship Fund* was initiated in 1990 as the result of a contribution from Jerry F. Friedner. The fund is named in honor of Dr. Sam Smith and Mrs. M. M. Barnett. Scholarships are available to cadets who possess attributes in accord with the high standards of The Citadel. Preference is given to a resident of South Carolina who is a junior or senior majoring in civil and environmental engineering. The first award from this fund was made in 1993.

*The Society of American Military Engineers Scholarships* are valued at $250 and are awarded each year to one rising senior and one rising junior who are members of The Citadel Chapter, S.A.M.E.

*The South Carolina Electric and Gas Company Minority Scholarship Fund* was established with the proceeds from the sale of the Charleston Bus Barn. This fund is to support scholarships for entering minority freshmen who are in financial need and who are residents of South Carolina.

*The Phyllis J. Sparks Scholarship* was established with a gift from Ms. Sparks in 1992. Preference for this scholarship is to senior member of the Junior Sword Drill Team.

*The Dr. Thurman Councel Sparks Scholarship* was established by a bequest of Mrs. Sparks in memory of her late husband. Recipients shall be worthy and needy South Carolina high school graduates, with preferences given to orphans. Amounts shall be sufficient to pay one year's tuition and room and board and to purchase books and uniforms. Awards are made on a one-year basis but may be renewed.

*The D. Allen Spivey, Bayliss L. Spivey, and Collins A. Spivey Scholarship* was established by Collins Alexander Spivey, Sr., Class of 1926, and Collins Alexander Spivey, Jr., Class of 1960. Awards are not to exceed one half (1/2) of the catalog cost of the recipient, and the recipient must be a South Carolina resident, with preference given to qualified applicants from Horry County. Awards are made on a one-year basis but may be renewed.

*The Rufus J. Sprott Scholarships* were established by Mrs. Sprott in honor of her late husband, Rufus J. Sprott, Class of 1923. They pay $500 a year and are restricted to cadet residents of South Carolina.

*The Star of the West Scholarships:* This four year scholarship is considered by The Citadel to be the premier scholarship presently offered to an incoming freshman cadet. The scholarship pays all college fees as outlined by the current school catalog. A cash stipend is paid the recipient each semester provided he/she attains Dean's List. In addition to the four-year undergraduate scholarship, the Star of the West Association may award a graduate scholarship for up to four years of additional study. This scholarship is available to students of well-rounded, outstanding combined abilities in academic, leadership, and extracurricular activities. Award of this scholarship is not restricted to financial need, field of study, geographical location or orgin. The Star of the West Scholarship was awarded for the first time in 1952. The scholarship is funded by a private trust fund established by the late William W. Wannamaker, Jr., and is awarded annually by the Board of Trustees of the Star of the West Association. Applicants may apply through The Citadel Office of Financial Aid.

*The William K. Stewart, Jr., and Mary Lee B. Stewart Scholarship* was established by William K. Stewart, Jr., Class of 1932, and Mrs. Stewart. Consideration for this scholarship is restricted to band members who can read music; play a brass, wind, or woodwind instrument; have need; and are not South Carolina residents. Preference in order will be given to residents of the city of Wilmington, North Carolina; eastern North Carolina; or the state of North Carolina. If none of the preferences can be met, any band member who is not a resident of South Carolina may be considered. A freshman may be considered based on the above criteria and the student's band experience in high school.

*The Sumter Guards Scholarship* was established in 1985 by the Sumter Guards, a corporation organized and existing under an act of the General Assembly of the

State of South Carolina. Awarding of this scholarship will be based on financial need. Preference, in order, will be given to members who have one year in the active company known as the Sumter Guards, children of members,children of former members, members who have been active less than one year, members of National Guard units of the Charleston area, residents of Charleston who agree to join the active Sumter Guards, members of National Guard units throughout South Carolina, or any resident of the Greater Charleston area.

*The Summerall Scholarship* is supported by the income from a trust fund established by alumni as a memorial to the late General Charles Pelot Summerall, President of The Citadel, 1931-1953. This scholarship is valued at $3,000 a year for four years.

*The Oscar N. Taylor Scholarship* was established by a bequest from Colonel Taylor, Class of 1919, and Mrs. Taylor. The scholarship has a monetary value of $1,500 a year for four years.

*The Edgar A. Terrell Scholarships* are valued at from $500 for one year to $1,000 a year for four years. They were made possible by a donation from the late Edgar A. Terrell, Class of 1915, and are limited first to candidates from Mecklenburg County, North Carolina, and then to candidates from the State of North Carolina.

*The Teal Terrell Scholarship* was established by a donation from Teal Terrell. Recipients shall be cadets from South Carolina with financial need.

*The Fearn Lee Thompson Scholarship* was established by Mrs. Jewell Marshall Bee Thompson to honor her husband, a member of the Class of 1958. Preference shall be given to residents of Charleston, Berkeley, or Dorchester counties. Financial need shall be considered.

*The Hugh Smith Thompson Scholarships* were established by William G. Thompson in memory of his grandfather, Hugh Smith Thompson, Class of 1856. Awards are made to students who have demonstrated financial need but are not available to scholarship athletes.

*The Captain William Thomson Scholarships* were established by a bequest from Captain Thomson. The scholarship is valued from $500 for one year to $1,000 a year for four years. Preference is given to students of Scottish descent.

*The Dr. Thaddeus A. Timmons Scholarship* was established by the family of Dr. Thaddeus A. Timmons, Class of 1928. The recipient should be a premedical major.

*The Janet S. Twitty Scholarships* were established with a gift from the AVTEX Commercial Properties, Inc., and William C. Twitty, Class of 1969, husband of the late Janet S. Twitty. The recipients of this scholarship will be business administration majors who demonstrate financial need.

*The Colonel S.J. West Scholarship(s):* With a most generous donation from the Honorable John C. West, Class of 1942 and former Governor of South Carolina, the Colonel S.J. West Scholarship Fund was established in memory of this Class of 1940 graduate. Colonel West had a distinguished military record and was a noted businessman and philanthropist. Financial need shall be a consideration with these scholarships, with special consideration to students who are orphaned or come from single parent families.

*The James Ripley Westmoreland Scholarship* has a value of $500 a year for four years. This scholarship is to aid worthy South Carolina cadets who are in need of financial assistance to obtain a college education. This scholarship is in memory of Colonel James Ripley Westmoreland, Class of 1900, who served as chair and member of the Board of Visitors.

*The W. Steve Weston, Jr., Class of 1938, Leadership Foundation Scholarships* were established with a generous gift from this graduate. They are full academic scholarships for cadets who demonstrate academic excellence and leadership qualities. Attributes not considered are religious beliefs or financial standing.

*The Louis F. Weyand Scholarship* was established by bequest of Louis F. Weyand.

*The Edward Zimmerman White, Jr., Scholarship* was established by a gift from daughters of Edward Zimmerman White. Recipients shall be senior business majors who are South Carolina residents. Preference will be shown to residents of Spartanburg County.

*The George Walker White Engineering Scholarship* was established by Mrs. Robert N. Garrison and Mrs. J. Boyd Strawn, daughters of George Walker White, Class of 1904, who was the son of Major James Benjamin White, Past Superintendent of The Citadel. The scholarship is awarded annually to the rising senior civil engineering cadet who best exemplifies the qualities of a potentially outstanding civil engineer.

*The Raymond F. Whitby, III, Scholarship* was established in 1979 as a memorial to Captain R.F. Whitby, III, Class of 1970.

*The Richard A. Whitney Scholarship* was established by Mr. and Mrs. Whitney. It is restricted to needy cadets from Beaufort County, South Carolina.

*The Lt. Colonel Clark Williams Memorial Scholarship* was established with a contribution from Dr. J. Herbert Moore.

*The John P. Wilson and William R. Risher Scholarship* was established through contributions from family and friends in memory of John P. Wilson, who was the father-in-law of The Citadel Board of Visitors Chair, Colonel William R. Risher, Class of 1947.

*The Citadel Women's Club Scholarship:* With a generous gift from The Citadel Women's Club in 1994, this scholarship fund was established. The recipient shall possess those attributes of ability, character, temperament and personality that are in accord with the traditionally high standards of The Citadel. Also the recipient must be a United States citizen, have successfully completed three semesters, and have an average GPR of 2.7 or higher.

*The Michael J. Worthy Scholarship* was established by Mr. and Mrs. Fred Worthy in memory of their son. This scholarship is open to young descents of American Indians.

*The Judge C. C. Wyche Scholarships* were established through a gift from the late Judge C. C. Wyche, Class of 1906, and are restricted to a cadet from South Carolina.

# Department of Intercollegiate Athletics

The mission of the Department of Intercollegiate Athletics at The Citadel is to develop, maintain, and continue to improve a well-rounded program of athletics geared to the aims and objectives of The Citadel, the Southern Conference, and the National Collegiate Athletic Association.

The Citadel is a member of the NCAA with Division I-AA classification in football, and Division I Classification in all other sports. In addition, the college is a member of the Southern Conference, which is comprised of Appalachian State University, The Citadel, Davidson College, East Tennessee State University, Furman University, Georgia Southern University, UNC-Greensboro, University of Tennessee Chattanooga, Virginia Military Institute, Western Carolina University, and Wofford College.

## The Sports Program

The Citadel Department of Intercollegiate Athletics sponsors 10 varsity teams including football, basketball, cross country, soccer, wrestling, indoor and outdoor track, baseball, golf, and tennis. Each year, more than 300 cadets participate as players, managers, or student trainers.

The Citadel athletic programs have been an aggressive force in the Southern Conference as well as on the national level. The Bulldog football team finished the 1992 season as the Southern Conference champions and ranked No. 1 in the nation. The Citadel has also advanced to the NCAA Division I-AA Playoffs three times since 1988. The football team has earned the reputation as a “giant killer” defeating the likes of Army, Navy, Arkansas, and South Carolina in the last five years. The Citadel has become a fixture in the national polls and has churned out at least one All-American each year for the past decade as well as numerous all-conference selections.

The college’s baseball team won the Southern Conference for the 11th time in 1995 and advanced to the NCAA Tournament. In 1990, The Citadel became the first military school ever to compete in the College World Series. The Bulldogs, who finished the year ranked sixth in the country, posted the nation’s longest winning streak during the regular season (26 games) and defeated the powerful Miami Hurricane squad twice to win the Atlantic Regional title. In 1977, The Citadel baseball team opened the new Joseph P. Riley Park with a 5-4 win over Western Carolina on April 6 and went on to win 30+ games for the 10th straight season.

Under the direction of fifth-year head coach Pat Dennis, the Bulldog basketball team won 13 contests—the most since the 1988-89 season. The Citadel returns four of five starters including Kirill Misyuchenko, who led the Southern Conference in blocked shots during the 1996-97 season.

Led by Citadel graduate Joel Christy, the soccer squad has increased its season win total in each of the past two seasons. A solid group of returnees and an impressive recruiting class have Christy optimistic for the 1997 campaign.

Head wrestling coach Tom Herring's third season with the Bulldogs was a successful one as the former Southern Conference wrestling champion at UT-Chattanooga continues to solidify the program. The Citadel has sent numerous individuals to NCAA championships, including three-time participant Rob Reeves.

The Citadel's tennis team won 14 matches in 1997 to push its streak of consecutive winning seasons to three under head coach Mike Groshon, a Citadel graduate. Cy Scammell, the 1996 Southern Conference Freshman of the Year, posted a 15-8 record while playing #1 singles. The Citadel's tennis facility is regarded as one of the finest in the entire Southeast.

In 1996-97, the Bulldog golf team posted six top-10 finishes including a third place showing at the Camp Lejeune Intercollegiate. John Asay, who was honored as the Southern Conference's Freshman of the Year, paced the unit with a 75.04 stroke average. Head coach Gene Styles returns all five starters for the 1997-98 campaign.

In cross country, team MVP Jamie Cawood finished 12th at the 1996 Southern Conference championship meet while teammate Andrew Lilly posted a 34th finish. In track and field, Kris Kut established a new freshman record for the javelin while winning an individual championship at the Southern Conference meet. In addition, Kut was chosen to participate in the United States Junior National Meet.

The Citadel's intercollegiate teams are led by qualified, caring coaches who are concerned with the overall development of the cadet-student-athlete. The graduation rate of Citadel athletes always ranks among the best in the country. Some of the best facilities in the country can be found at The Citadel, and the sports medicine program is one of the most respected in America.

## Facilities

Athletic facilities at The Citadel are among the finest in the conference. Home football games are played at 22,500 seat Johnson Hagood Stadium, which is slated for renovations in the near future. Seignious Hall, perhaps the finest facility of its kind on the NCAA Division I-AA level, houses the football locker room, the sports medicine facilities equipment room, an outstanding weight room, coaches' offices, and meeting areas. The newly renovated McAlister Field House seats 6,000 for basketball games and is a showcase facility for the Bulldog basketball program. The recently completed Earle Tennis Center, located adjacent to the Donald C. Bunch Tennis Courts, provides excellent dressing facilities and meeting areas for the tennis team.

Outdoor facilities for practice and competition include six all-weather composition and four Laykold tennis courts, an upgraded quarter-mile all-weather track, and four practice fields for soccer and football. The soccer team plays its home games on The Citadel parade ground and Johnson Hagood Stadium.

In April of 1997, The Citadel baseball team moved into the brand new, state-of-the-art Joseph P. Riley, Jr., Park, located on the banks of the Ashley River. The 6,000-seat park features a Bulldog locker room, luxury sky boxes, and a major league-style matrix board. The Citadel will utilize College Park for practice sessions and a rain site for the Coca-Cola/Wendy's Southern Conference Tournament, which is held annually in Charleston.

Vandiver Hall, which opened its doors in the fall of 1991, provides the Bulldog soccer, baseball, wrestling, rifle, golf, and track teams with a modern well-equipped facility. Dressing rooms, ranges, practice areas, and locker rooms are just a few of the many offerings of Vandiver Hall.

# Honors and Awards

## The Palmetto Award

*The Palmetto Award* is made by the Board of Visitors in recognition of exceptional performance which reflects great credit on The Citadel or the State of South Carolina. It is to be made to a member of the Corps of Cadets, alumni, faculty, or staff of The Citadel, or any other person whose service to the college or state is deemed worthy of recognition. Members of the Board of Visitors, the President of The Citadel, or the Association of Citadel Men may make nominations for candidates for this award, but recipients must be unanimously approved by the Board of Visitors. This award takes precedence over all other honors awarded by The Citadel with the exception of honorary degrees.

## The Algernon Sydney Sullivan Award

*The Algernon Sydney Sullivan Award* is a bronze medallion presented by the college, through the benefaction of the New York Southern Society, to students or others in recognition of high thought and noble behavior. Established by the Society in 1925, the award has been made to The Citadel since 1933.

## Commencement Honors

The first two commencement honors reflect the reputations of the recipients while they were cadets at The Citadel and are thus restricted to those graduates who have earned (and are using to satisfy graduation requirements) a minimum of 90 semester hours at The Citadel.

*The John O. Willson Ring* is given annually, at the bequest of Dr. John O. Willson, to the cadet member of the senior class voted by classmates as the finest, purest, and most courteous member of the class.

T*he Scholarship Medal* is presented annually by the Board of Visitors, and the recipient is designated as the First Honor Graduate of the Corps of Cadets. This honor is awarded to the cadet graduate whose grade-point ratio at The Citadel is highest among the graduating class.

To be eligible to graduate with honors or for departmental honors, the student must have earned at The Citadel at least half of the semester hours required in the major course of study.

A degree *summa cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.900-4.000.

A degree *magna cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.700-3.899

A degree *cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.500-3.699.

*Departmental Honors* are awarded on recommendation of department heads to those students of the graduating class who have established a grade-point ratio of 3.500 or better in at least 36 hours of work completed at The Citadel in their major department. This must include all department work required in the junior and senior years.

## Academic Awards

*The Dean's List* is a recognition given for the work in a semester to those cadets registered for 12 or more semester hours whose grade-point ratio is 3.200 or higher, with no grade below C. The medal is worn on the uniform during the following semester.

*Gold Stars* are awarded to those cadets on the Dean's List who have made a grade-point ratio of 3.700 or higher for the work of a semester. Stars are worn on the uniform during the following semester.

## Academic Honors

*Phi Kappa Phi* is the only national honor society whose membership is open to scholars of all academic disciplines. Members of The Citadel Chapter of the Honor Society of Phi Kappa Phi are selected from among those undergraduate students who rank scholastically in the upper 4 percent of the junior class or in the upper 8 percent of the senior class. In order to qualify, graduate students must have attained a 3.500 GPR during their undergraduate career and a 4.000 in graduate classes at The Citadel. Members of the faculty whose professional records have rendered them worthy of membership may be extended invitations to join.

*The American Legion ROTC Scholastic Excellence Awards* are presented to Army, Navy, and Air Force ROTC first class and second class cadets who have demonstrated scholastic excellence.

*The Granville T. Prior Award* consists of a key and letter presented annually by The Citadel History Department to the student whose senior research project is selected by a joint faculty committee as the best in the Departments of English, History, and Political Science.

*The William E. Mikell Award*, a cash award made possible by the late William E. Mikell, is awarded to the graduating English major having the highest average in English (including English Honors) since the beginning of the sophomore year.

*The Wall Street Journal Student Achievement Award* is donated by the Wall Street Journal and awarded to the senior chosen by the Business Administration Faculty as the most outstanding student in Business Administration.

*The Charles P. Summerall Cup* is donated by the European Citadel Association and awarded annually for one year to the company of cadets with the best academic achievement. Companies are rated on the average grade-point ratio (GPR) for each semester plus a factor to reflect the increase or decrease in GPR from the first to second semester.

*The Post and Courier Awards* are given by the *Post and Courie*r to the best writers on *The Brigadier* staff as chosen by a committee of faculty and staff members.

*The Francis Marion Award* is presented by the Rebecca Motte Chapter, D.A.R., to a cadet of the graduating class for outstanding achievement in American history as expressed by having the highest GPA in all American history courses taken.

*The Peter Gaillard Memorial Award* is given annually by Colonel and Mrs. St. Pierre Gaillard in memory of Peter Gaillard, Class of 1948, to a graduating first class cadet majoring in electrical engineering, on a basis of scholastic attainment, leadership, and participation in extracurricular activities.

*The Charles T. Razor Memoral Award* is given annually in memory of Colonel Charles T. Razor to a graduating cadet selected by the head of the Department of Electrical Engineering on the basis of scholastic achievement, ability, and willingness to help others.

*The Colonel Louis Shepherd LeTellier Award* is given annually to a member of the graduating class attaining the highest academic average in civil and environmental engineering.

*The George Walker White Award* is given annually by Mrs. James Boyd Strawn and Mrs. Robert Neal Garrison in memory of their father, Class of 1904. This award goes to a member of the graduating class for outstanding achievement in civil and environmental engineering.

*The Colonel Christopher Schultz Gadsden Memorial Award*, in memory of Colonel Gadsden, Class of 1852, is given annually to the "best all-round civil engineering graduate" as selected by the civil and environmental engineering faculty.

*The Reuben Burton Pitts, III, Memorial Award* is given annually in memory of Reuben Burton Pitt III, Class of 1963, to the second class cadet who is selected by classmates as showing the greatest concern for the well-being of other cadets.

*The Carlisle Norwood Hastie Award* is given annually to the graduating first class cadet who has been selected by classmates as having shown the most tact, consideration, and courtesy to fellow classmates.

*The Henry J. Taylor Cup* is presented annually to the member of *The Brigadier* staff who has demonstrated the greatest journalistic improvement during the current school year.

*The Colonel James K. Coleman Award* is in honor of Colonel Coleman, Class of 1919, who established the Department of Political Science at The Citadel. It is given annually by Pi Sigma Alpha, National Political Science Honor Society, to the first class cadet in political science with the highest scholastic record for the four years.

*The H. L. Gary Award*, consisting of a cash award and a certificate of recognition, is given annually to a graduating senior for outstanding achievement in European history.

*The English Faculty Award*, consisting of a cash award and a scroll, is given by the members of the Department of English to an English major who, during an academic year, has submitted an essay, short story, or poem of exceptional merit.

*The George E. Reves Award* is given in memory of Colonel George E. Reves. The award, consisting of a suitably inscribed desk plaque for the recipient and the listing of the recipient's name on the master award plaque which is kept in the Department of Mathematics and Computer Science, is given to the graduating senior selected by the faculty of the Department of Mathematics and Computer Science for outstanding achievements in mathematics or computer science.

*The Colonel Charles E. Hirshey Award* is given to the graduating senior cadet in education who in the judgment of the faculty has made the greatest contribution to the department, has achieved an outstanding record academically, and has the greatest potential for excellence in teaching.

*The Thomas Francis McGarey Award* is a cash award given annually by Mrs. Miriam M. Favorite in memory of her father, Thomas Francis McGarey, Class of 1914, to the outstanding graduating first class cadet in the field of natural science.

*The Keith E. Hamilton Award* is presented by the health and physical education faculty to the senior physical education major who has demonstrated outstanding academic achievement and potential for growth.

*The William E. Mikell Award,* a cash award made possible by the late William E. Mikell, is awarded to the graduating English major having the highest average in English (including English Honors) since the beginning of the sophomore year.

*The Morris, Duffey, and Boone Award,* an embossed copy of *Black's Law Dictionary,* is presented annually at the Lent Reading of The Citadel Inn of Court for excellence in prelaw preparation and service to the Inn.

*The Medal of the South Carolina Commandery of the Military Order of U.S. Foreign Wars* is presented to a member of the South Carolina Corps of Cadets who is majoring in History, who at the end of the fall term of the junior year has the highest average GPR in all history courses taken, possesses a minimum of a 3.00 GPR average in all courses taken, and who demonstrates a high moral character and a high order of loyalty to his/her cadet company, The Citadel, and the United States.

*The Zelma Guy Palestrant Leadership Award* is given annually to a rising senior in the Corps of Cadets who is an outstanding student and an active user of the Daniel Library and who has demonstrated in interactions with fellow cadets, faculty, and staff the characteristics of integrity, perseverance, vision, fairness, and forthrightness. The recipient must have a strong sense of duty and an ability to listen and take good points from differing views to forge a consensus. The recipient is selected by library faculty and staff.

*The Francis Eugene Zemp Award* is given annually to the premedical student having the highest academic average. The award consists of a plaque given to the recipient and the inscription of the student's name on the master award plaque which is kept in Byrd Hall.

*The MacArthur Cadet Award* is presented annually by the General Douglas MacArthur Foundation to the senior class cadet for the most soldierly performance considering academics, athletics, and leadership.

*The William Porcher DuBose Award* is given annually to the cadet first honor graduate by the United Daughters of the Confederacy.

## Military Awards

*The Order of Cincinnatti Award* is presented annually to a cadet officer who has exemplified in the highest degree the qualities of soldier and citizen.

*The Congressional Medal of Honor Society Award* is awarded annually to the graduating first class cadet who is considered the most outstanding in the performance of cadet and military activities and who will be commissioned into the armed forces subsequent to graduation. The recipient is selected by a committee comprised of the Commandant of Cadets and the Professors of Aerospace Studies, Military Science, and Naval Science.

*Veterans of Foreign Wars Award* is presented annually to first and second class cadets who have achieved an outstanding academic record.

*American Veterans of World War II, Korea, and Vietnam Award* is presented annually to ROTC cadets for diligence in the discharge of duty and willingness to serve God and Country.

*The Wade Hampton Saber* is awarded annually by the South Carolina Division, Daughters of The Confederacy, to the member of the first class who is most outstanding in leadership and who makes the greatest contribution to The Citadel while a cadet.

*Army ROTC Distinguished Military Student Program*—Army ROTC students whose proficiency in military training and whose qualities of leadership and attention to duty have merited the approbation of the Professor of Military Science are designated Distinguished Military Students and are eligible to apply for appointment as second lieutenants in the Regular Army when they have registered for their last academic year.

*The Association of U.S. Army Medal* is donated by the Association of the United States Army and awarded annually to the outstanding Army ROTC second class cadets.

*The Widder Award* is presented annually by Mr. and Mrs. John D. Widder, in memory of their son, Capt. David Widder, USA, Class of 1959, to the outstanding Distinguished Military Student in Army ROTC.

*Distinguished Naval Students*—During the fall semester each year, the Professor of Naval Science designates as Distinguished Naval Students (DNS) those senior cadets in the Naval ROTC program who have displayed outstanding qualities in academics, leadership, adaptability to military training, and sound moral character.

*The United States Naval Institute Awards* consist of a membership certificate in the Naval Institute for a one-year period awarded to an outstanding NROTC regular cadet in the senior class and to an outstanding NROTC contract cadet in the senior class.

*The Marine Corps Association Award* consists of a certificate and membership in the Association for a one-year period awarded to the outstanding junior or senior Marine-option cadet who has displayed the highest qualities of perseverance, integrity, motivation, and devotion to duty.

*The Navy League Sword* is awarded annually by the Navy League and the U.S. Marine Corps to the most outstanding cadet to be commissioned in the U.S. Navy or U.S. Marine Corps.

*Distinguished Air Force Students (DAFS)*—During the fall semester each year, the Professor of Aerospace Studies designates as DAFS those AFROTC cadets of the first class who have displayed outstanding qualities of leadership, adaptability to military training, and academic achievement.

*The Air Force Association Award* is presented each year to the outstanding first class AFROTC cadet possessing outstanding leadership characteristics. The winner of this award is also eligible to receive the Aerospace Education Foundation's *W. Randolph Lovelace Memorial Award.*

*The Air Force Historical Foundation Award* is presented annually to an AFROTC first class cadet in recognition of outstanding leadership, citizenship, academic, and military achievement.

*Air Force ROTC Awards*—Citadel AFROTC cadets are very competitive for other awards to include the *American Fighter Aces Award,* the *USAA Scholarship Award,* the *Virgil I. Grissom Memorial Scholarship Award,* and the *AFROTC Valor Award.*

*The American Legion Army, Navy, and Air Force General Military Excellence Award* is presented annually to a cadet in each of the first and second classes who has demonstrated outstanding qualities of military leadership, discipline, character, and citizenship.

*The National Defense Transportation Association Award* is presented annually to an outstanding ROTC first class cadet majoring in business administration, civil engineering, or political science.

*The Society of American Military Engineering Award* is awarded annually to a member of the first or second class who is majoring in engineering and has demonstrated outstanding academic achievements.

*The South Carolina Reserve Officers Association Awards* are donated annually by the Reserve Officers Association and awarded to the outstanding Army, Navy, and Air Force ROTC first, second, and third class cadets for demonstrating courtesy, personal attributes, positive attitude, and promotion potential.

*The Daughters of the American Colonists Award* is given annually to the first class cadet with the best disciplinary record during the four years at The Citadel.

*The Armed Forces Communications* and *Electronics Association Awards* are awarded annually to the outstanding Army, Navy, and Air Force ROTC first and second class cadets majoring in engineering, mathematics, chemistry, and physics.

*Sons of the American Revolution Awards* are awarded annually to outstanding Army, Navy, and Air Force fourth class cadets on the basis of leadership ability, soldierly bearing, and excellence in ROTC studies and activities.

*The Daughters of the American Revolution ROTC Award* is presented annually to an outstanding graduating ROTC cadet selected for academic excellence, leadership ability, adherence to military discipline, dependability and good character, and a fundamental and patriotic understanding of the importance of ROTC training.

*The Major William M. Hutson Award* is presented annually by Colonel and Mrs. J.C. Hutson in memory of their son, Major William M. Hutson, USAF, Class of 1939, to a rising senior selected for outstanding leadership ability, academic standing, and devotion to duty.

*The Commandant's Cup*, donated by the late Colonel W.C. Miller, is awarded annually to the best-drilled company.

*The W.C. White Medal* is presented annually by Mrs. W.C. White to the company commander of the best-drilled company.

*The Kelly Cup,* in memory of Captain Benjamin E. Kelly, Jr., USA, Class of 1961, is awarded annually to the squad winning the squad drill competition.

*The Star of the West Medal,* originally presented to The Citadel by Dr. B.H. Teague, is awarded annually to the best-drilled cadet.

*The Major General Lewie G. Merritt Memorial Award* is presented annually to an outstanding Marine option senior based on scholastic attainment, leadership, physical fitness, integrity, motivation, and devotion. Additionally, the cadet must be designated a Distinguished Naval Graduate by the Professor of Naval Science. The award consists of a certificate and life membership in the Marine Corps Association.

## Other Awards

Other prestigious awards for which Citadel cadets in Army, Navy, and Air Force ROTC can compete include *The Legion of Valor Bronze Cross for Achievement, The Military Order of World Wars Medal, The National Sojourners Award, The American Defense Preparedness Association Award,* and *The Retired Officers Association ROTC Medal.* The list of awards on the last several pages is not complete, but space precludes a full listing. Many other awards are given in recognition of military and scholastic excellence, as well as meritorious participation in cadet activities and athletics.

# The Citadel Honors Program

The Citadel Honors Program provides exceptional learning experiences for a limited number of outstanding students whose past records indicate that they can take full advantage of the personal student-teacher relationship which the tutorial-based honors curricula will provide. Honors courses will augment the current curriculum of the college by offering for those selected students an experimental and alternate means of education grounded in the methods of intellectual inquiry.

The Honors Program is an autonomous program of the college, with an Honors Director serving as the head of the program. The Director is responsible for recruiting and admitting Honors students, reviewing courses which are proposed to meet Honors requirements and selecting those which will be included in Program offerings, critiquing Honors courses and the performance of the faculty offering them, establishing and enforcing entrance and exit requirements, serving as the Honors Advisor for all Honors students, establishing and monitoring the operating budget for the Honors Program, and coordinating the Honors Program requirements with those of the academic majors.

The Honors Council is comprised of at least four current or former Honors Faculty and two Honors students. The heavy involvement of the Honors students in this Council is intended to ensure that addressing the needs of these exceptional students will continue to be the primary goal of The Citadel Honors Program. The Honors Council will advise and assist the Honors Director in the governance of the program.

The Honors Students' Association is comprised of academically proficient participants or past participants in the Honors Program. Its purpose is to promote closer association among participants in the Honors Program, to provide a student forum for discussion of the Honors Program and its operation, and to assist the Honors Council.

## Admission and Retention of Students

Students must apply separately for admission to the Honors Program, in addition to applying for admission to the college. The Honors Director will evaluate all applications and offer acceptances based upon the student's standardized test scores, class rank, extracurricular activities, and intellectual and academic promise. Personal interviews, at least by telephone, are required as part of the application process. Applications should be to Dr. Jack W. Rhodes, Honors Program, The Citadel, 171 Moultrie Street, Charleston, SC 29409. Phone: 803-953-3708. The deadline for applying is January 15.

Students with outstanding grades after their first semester at The Citadel may apply for admission to the Honors Program at that time. Also, deserving students may be admitted to individual Honors courses on a space-available basis; in such cases, the Honors courses will meet Core Curriculum or General Elective requirements as appropriate.

To remain in good standing, students in the Honors Program must maintain at least a 3.0 in their Honors courses and a 2.8 overall. The Honors Council will review the records of all Honors students who fall below this average and take appropriate action, which might be either separation from the Honors Program or the establishment of a probationary period.

## Honors Students Advisor

One faculty member in each academic department serves as academic advisor to all the Honors Program students majoring in that discipline. In addition, the Honors Director helps advise students concerning their schedules, courses of study, and other matters as needed.

## Honors Program Curriculum

The Honors Program is designed to provide an exceptionally broad background of cultural knowledge and learning skills which students can then apply to their chosen areas of academic specialization. Most of the Honors Program curriculum will come in courses designed to be taken in lieu of Core Curriculum requirements, and most will, therefore, be taken in the freshman and sophomore years. The other Honors courses will take the place of General Electives. The emphasis in Honors courses will be not primarily acceleration, but enrichment. The courses will go into extra depth, examining more closely the significance and implications of the material studied, or presenting that material in a broader cultural context. In general, it is expected that Honors courses will employ discussion in order to establish habits of rigorous inquiry and intellectual independence.

The plan behind the curriculum is to create an environment of learning in which the students' intellectual habits can be formed. The patterns and processes of intellectual and scholarly inquiry will be taught, not merely the results of other people's having conducted that inquiry. Each Honors course will have a tutorial foundation; individual students will meet with their instructors frequently (usually, once every week) to discuss and develop ongoing writing, research, and laboratory projects.

## Curricular Requirements

Students majoring in one of the sciences or engineering will be required to complete the following Honors courses: Honors Personal and Professional Development I, II, and III; Honors English I, II, III, and IV; Honors History I and II; Honors Mathematics I and II; Honors Social Science Project; and one Honors Seminar or Research Project.

Students majoring in one of the liberal arts will be required to complete the following Honors courses: Honors Personal and Professional Development I, II, and III; Honors English I, II, III, and IV; Honors History I and II; Honors Social Science Project; and two Honors Seminars or Research Projects (or one of each).

## Freshman Honors Courses

HONR 100 *Honors Freshman Seminar* No Credit Hours

This course will introduce freshman Honors Program students to the various areas of academic study available at The Citadel, their subjects, their methods, and their rewards. The format for the course will be lecture/discussion.

HONR 101 and 102 *Honors English I & II: The Aesthetic Context* Three Credit Hours Each Semester

This sequence will introduce students to the artistic achievements, chiefly literary, of Western and possibly some non-Western cultures, within the context of the major intellectual and ideological currents of those cultures. Techniques of prose composition will be taught as the students engage these issues in writing.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirements in freshman English by successfully completing HONR 101 and 102 ("Honors English: The Aesthetic Context") instead of ENGL 101 and 102 ("Composition and Literature"). Students who successfully complete the first semester of the Honors Program will be allowed to enroll in ENGL 102 and may fulfill their Core Curriculum requirement in freshman English by successfully completing that course.

HONR 103 and 104 *Honors History I & II: The Social, Political, and Historical Context* Three Credit Hours Each Semester

This sequence will introduce students to the social, political, and historical events involved in the development of Western and possibly some non-Western cultures, emphasizing the interplay between the way people of the past saw themselves and the universe and the way they shaped their environment.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in history by successfully completing HONR 103 and 104 ("Honors History: The Social, Political, and Historical Context") in lieu of HIST 103 and 104 ("History of Western Civilization"). If a student successfully completes the first semester of Honors History and then ceases participation in the Honors Program, the student may complete the Core Curriculum requirement in history by completing HIST 104 (the second semester of "History of Western Civilization").

HONR 107 and 108 *Honors Mathematics I and II: The Analytic Context* Four Credit Hours Each Semester

This sequence will teach the Calculus within the context of its development from the civilization which produced it and its impact on civilization since. Topics covered will closely match those in MATH 131 and MATH 132. Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in mathematics by successfully completing HONR 107 and 108 ("Honors Mathematics: The Analytic Context") in lieu of MATH 131/32 ("Analytic Geometry and Calculus I and II"), MATH 105/106 ("College Mathematics I and II"), MATH 106/107 ("College Mathematics II and III"), or MATH 106/160 ("College Mathematics II" and "Statistical Methods"). Students who successfully complete the first semester of Honors Mathematics and then cease to participate in the Honors Program can fulfill the Core Curriculum requirement in mathematics by completing MATH 105, MATH 107, MATH 132, or MATH 160.

## Sophomore Honors Courses

HONR 201 and 202 *Honors English III & IV: Studies in British and American Literature* Three Credit Hours Each Semester

This sequence will teach one or more themes, genres, modes, schools, periods, or authors in British and American literature. The techniques of prose composition will be reinforced and developed.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in sophomore English by successfully completing HONR 201 and 202 in lieu of ENGL 201 and 202. Students who successfully complete the first semester of sophomore Honors English and then cease participation in the Honors Program will be allowed to enroll in ENGL 202 and may fulfill the sophomore Core Curriculum requirement in English by successfully completing that course. Students majoring in English will be required to complete ENGL 213 and ENGL 214. In that case, HONR 201 will satisfy the departmental requirement to take either ENGL 211 or 212, and HONR 202 will count as an English elective.

HONR 203 *Honors Social Science Project* Three Credit Hours

This will be an interdisciplinary, integrative group project in the social sciences, drawing upon the context provided by the freshman Honors sequence. Students may meet the college's Core Curriculum Social Science requirement by completing this one semester course.

## Upper-Level Honors Courses

HONR 300 *Honors Seminar: Special Topics* Three Credit Hours

Often interdisciplinary, this seminar will investigate a field of study not addressed—at least, not in much detail—within the framework of the normal curriculum. It will be suitable for students in all majors. Topics will vary.

HONR 400/401 *Honors Directed Research Project I & II* Three Credit Hours Each Semester

Juniors or seniors conduct research under the direction of faculty members. The research need not be original with the student but may be part of a project which the faculty member is currently conducting or has conducted in the past. An extradepartmental second reader or evaluator will be required for all projects.

## Multilevel Honors Courses

HONR 211, 311 and 411 *Honors Personal and Professional Development I, II, and III* Three Credit Hours Upon completion of HONR 411

Taught entirely in tutorial, this sequence directs students in a three-year period of research and writing on the subject of their professional goals, encouraging them to envision their leadership in their future profession and guiding them in exploring through research and writing the ideals as well as the facts of that profession. Three credit hours will be granted upon completion of HONR 411.

## Honors Program Recognition

Students who complete all Honors Program requirements will be recognized as Honors Program graduates in their college commencement ceremony. They will receive an Honors Program certificate plus an Honors Seal on their Citadel diploma. A notation will be added to their official college transcript to indicate they have completed the requirements of the Honors Program.

Students admitted to the Honors Program after their first semester at The Citadel will be required to complete at least 18 semester hours of Honors courses, plus HONR 211, 311, and 411. They will be recognized as Honors Program Graduates in their respective commencement ceremony, and a notation will be added to their official college transcript to indicate that they have fulfilled the requirements of the Honors Program. Unlike Honors students who have completed the full program, they will not receive an Honors Seal on their diplomas.

# THE UNDERGRADUATE CURRICULUM

The curriculum is the major instrument by which an institution whose purpose is to provide a liberal education passes along to the rising generation the intellectual heritage of all people. This large treasury includes not only valuable knowledge acquired over the centuries but also the modes of thought by which that knowledge has been acquired.

The curriculum provides an orderly sequence of academic achievements through courses which exhibit a solid body of subject matter and employ scholarly methods which are typical of their discipline and whose subject matter and methods are useful for understanding other academic matters beyond the confines of their own discipline. Such courses have been divided traditionally into two groups: the core curriculum, where students are initiated into the methods and subjects of several academic disciplines that represent the full scope of academic study, and the academic major curriculum, where students pursue intensive study in a single academic field.

Through this objective and intellectually rigorous method of education, The Citadel prepares not only professional scholars but also leaders of society in all walks of life.

## THE CORE CURRICULUM

The core curriculum is the body of courses which constitutes the center or nucleus of a Citadel education. The disciplines represented in the core are selected according to two standards: the rational, inasmuch as the courses encompass each of the basic methodologies employed in academic pursuits, and the historical, inasmuch as the centuries have confirmed the durability and the serviceability of the disciplines involved.

While the courses of the core are diverse, they nevertheless constitute a unit of the college curriculum, one that coalesces at a higher level of abstraction than other portions of the curriculum, because the core courses examine the foundations of particular, central disciplines in the perspective of the whole academic enterprise, the search for truth. These courses, therefore, have a decidedly philosophical cast, and for this reason they rightly emphasize their discipline's ultimate bases, the validity of its method, its essential elements, and its distinctive character.

In the core curriculum, earlier education reaches a completeness and a fullness of perspective for which the student was not previously ready. Later studies, while they will go deeper and further into a particular field, will necessarily require the student's attention to be more narrowly focused. The core curriculum also captures the academic quality of higher education better than most arrays of courses since through core courses the student examines the forms which knowledge takes, whereas later studies will concentrate on the content of knowledge in a presupposed form. Furthermore, the level of intellectual achievement in the core courses is for most students higher than they will ever reach again, except in the confines of the single discipline in which they major.

Since the core curriculum is fundamental to all further studies, the entire faculty shares authority over it, although some departments have special responsibility for the parts which they teach. The core is placed early in a student's career because it inculcates those skills essential for further study and for the life of an educated person, such permanent and profound dispositions of the spirit as the habits of objectivity, consistency, preciseness, orderly deliberation, prudent judgement, and respect for the life of the mind. These intellectual powers are developed by students seriously abandoning themselves to mature study in the academic disciplines which constitute our core.

The Standing Curriculum Committee of the college is charged to monitor the overall appropriateness and effectiveness of the core curriculum courses, to study and determine the benefit accruing to students from these courses, to examine whether the purposes for which the core was designed are being realized, and to recommend changes and modifications within particular courses or with the overall Core Curriculum.

## Areas of Study

Within The Citadel's core curriculum, study in five areas—English, History, Mathematics, Science, and Social Science—is required of all students regardless of their academic majors. For all students other than those pursuing professional preparations in the areas of civil and electrical engineering, education, and the teaching track of physical education, study of a foreign language is also required. Each course, or sequence of courses, which addresses a core curriculum requirement incorporates, where appropriate, all the following skills: written communications, critical thinking, logical reasoning, and resource and reference usage.

*English* The use of language is at once the most essential, the most sophisticated, and the most practical of all human arts and is a skill indispensable to further endeavors in any field. In the use of language and ideas, English studies require the student to assess great works of literature. This obliges students to become adept in handling the important values of civilization and also to become sensitive to the subtle nuances that great writers have found in them. Such studies also refine aesthetic sense and thereby teach, among other things, to use language with appropriate grace and force. Literary studies contribute to the development of a student's character by requiring the student to evaluate human conduct and judge what people have made of their lives. English studies are central to a college education because they are a forum where the rival and complementary claims of philosophy, practicality, science, ethics, politics, and religion come alive in concrete situations.

The primary benefits in studying English come when a student engages in dialogues with the works of great authors, listening to their words receptively and responding to them critically. Prerequisite to this encounter are skills in writing and literary analysis.

Each student at The Citadel is required to complete four semesters of English. The first semester, ENGL 101, is basic composition, and the Department of English is responsible for determining which entering students are sufficiently prepared to bypass this course. The transcripts of those students who are permitted to bypass this course will reflect ENGL 101 as if it had been completed successfully on a Pass/Fail basis at The Citadel.

For student who must participate in ENGL 101, successful completion will be based on acquired writing skills, and the course must be completed with the grade of "C" or higher.

It is expected that the second course in English, ENGL 102, will be bypassed only by exceptionally well-prepared students. Should this circumstance occur, the transcript will reflect ENGL 102 as was described for ENGL 101 above. This course continues to develop the writing skills of the student, introduces the student to various literary forms, and prepares the student to undertake a two-semester literature sequence.

A two-semester literature sequence in Major British Writers, ENGL 201/202, completes the core curriculum requirement in English. Students majoring in English address this literature requirement through ENGL 213/214.

*Mathematics* Much of mathematics deals with the study of number, form, arrangement, and associated relationships, using rigorously defined literal, numerical, and operational symbols. The mathematical world, then, is one of extraordinary purity and completeness, and the study of it provides a precision of thinking and a clarity of knowledge that could hardly be imagined without this unique discipline.

Mathematics is a product of human thought which does not depend on empirical observations, yet it is admirably adapted to concrete interpretations in the physical and social sciences. Its purely theoretical foundation confirms the objectivity of scientific findings, and its transferability to discrete sciences provides a bond of unity among them. Mathematics, then, comprises both abstraction and the application of the results obtained by abstraction to specific problems. Of these aspects, the basic one is abstraction. Because mathematics is abstract and general, it is applicable to problems which arise in widely different areas.

Core studies in mathematics are designed to enhance students' facility in mathematical operations, advance them as far into mathematics as their talent and preparation will permit, increase their understanding of mathematical applications in other fields, and reveal the nature of mathematics as a discipline in its own right.

Each student is required to complete a two-semester sequence in mathematics. All students pursuing the B.S. degree in biology, chemistry, computer science, engineering, mathematics, or physics must complete a two-semester calculus sequence, either MATH 106/107 or MATH 131/132. All other students must complete the MATH 105/106 sequence which includes an introduction to calculus. The honors sequence, HONR 107/108, may be taken in lieu of one of the sequences above.

*History* History teaches students information about the past which helps to explain the human condition, and, more important, it teaches students to think about human affairs as historians do.

The information in the core history courses concerns matters of major significance in the human story. It is sufficiently remote to be viewed dispassionately and comprehensively, and it is of a sufficient quantity to display major forces at work over a long period.

To begin thinking as a historian does, the student is required to encounter a variety of evidence about past events, to weigh it by several standards, and to discern in it causes, effects, theories, facts, inconsistencies, and the like; in addition, the student is required to attempt, according to the standards of the discipline, a narrative assessment of what the evidence reveals about the past.

What a student gains from such a study of history, besides the accumulation of information and the rigorous exercise of mental faculties, is the ability to view human activity in its temporal and other dimensions and also from a large and objectively framed perspective, develop a balanced regard for both concrete deeds of people and for the larger patterns which these deeds constitute.

Each student is required to complete two semesters of History of Western Civilization, HIST 103/104.

*Science* Studies in a science require a student to make observations about the physical world, to reason about observations according to scientific standards, and to begin to understand the system of principles that control nature.

The method of science is to make and record observations about material phenomena, to arrange the accumulated data in a systematic way, to develop inductively hypotheses which explain the data, and finally to design and perform experiments which test these hypotheses and their domain. Only when these hypotheses are independently corroborated and exhibit predictive capability can they be allowed to stand as scientific theory. When a student practices the scientific methods and learns to account for every aspect of the phenomena; to construct a hypothesis which is based upon scientific observations which also has general application; to follow hunches and intuitions but to hold them in suspense so as to contrive a rational explanation; and then to test the explanation by an experiment which publicly applies it to a demanding case, the student develops a healthy understanding of nature and a firmly established appreciation for the marvels of the physical world.

Each student must complete (4) semesters of science. This requirement must be met by two sequences of two semesters each in Biology, Chemistry, or Physics. No more than one sequence is to be completed in any single science. Students pursuing a degree in the Department of Health and Physical Education meet the requirements for the study of biology through the three semester sequence, BIOL 101/111, BIOL 303/305, and BIOL 304/306.

*Social Sciences* The ultimate goal of the social sciences is the understanding of those aspects of human experience that are social, political, economic, and psychological. By applying a variety of methods including hypothesis testing, quantification, and statistical analysis, the social sciences seek to construct empirically based theories of human behavior. Because the social sciences differ from the natural sciences in subject matter and from the humanities in method, they occupy a distinctive position among the academic disciplines. The social sciences are to human phenomena what the natural sciences are to natural phenomena.

The social sciences are important because of the significance of social theories in understanding human conduct and because of the increasing reliance on the methods, techniques, concepts, and vocabularies of the social sciences.

Each student is required to complete a one-semester course in the social sciences, and this course must be selected from among the following, each of which requires a year of freshman level mathematics as a prerequisite; PSCI 201 (American Politics and Government), PSYC 209 (Psychology of Individual Behavior), HONR 203 (Honors Social Science Project), or SOCI 210 (Social Sciences and Social Life).

*Foreign Languages* The world has become a "global village," and we can no longer afford to live in linguistic isolation, expecting to influence those who do not know our language while remaining ignorant of theirs. It is perhaps more vital now than at any moment in the history of our nation for us to realize the absolute necessity of becoming proficient in foreign languages and knowledgeable about the cultures of people living beyond our borders.

Not only will our diplomats and military personnel be spending ever greater amounts of time abroad, but also more and more business people, engineers, scientists, medical personnel, lawyers, teachers, and other professionals will find themselves working and travelling in other countries. A good command of a foreign language can enable these Americans to be far more effective and successful in their work, in addition to being more comfortable in their surroundings.

Accordingly, it has come to be recognized that study of a foreign language and culture is an essential element of a liberal arts education. The benefits of studying a foreign language are many and varied; the practical ability to communicate proficiently with non-English speakers; the enrichment of understanding one's own culture through investigation of another's culture; an increased exposure to ideas and concepts expressed by important world authors in their literature; and, as a consequence of foreign language study, the enhancement of appreciation and knowledge of one's own native tongue, its structures and vocabulary.

In short, knowledge of foreign languages is not only indispensable for the education of the "whole person," but it is also a fundamental requirement for maintaining satisfactory commercial, diplomatic, and cultural relations in today's ever-shrinking world.

Each student, other than those pursuing degrees in teacher preparation in education, physical education or degrees in civil or electrical engineering, will be required to study the same foreign language (French, German, or Spanish) through at least the 202 level at The Citadel. The Department of Modern Languages conducts a screening program each fall to determine the level of language proficiency of each entering student.

## THE MAJOR CURRICULUM

Building on the knowledge and skills acquired through study of core curriculum courses, the curriculum of each major consists of carefully selected required courses complimented by a variety of electives. These electives are in one of the following categories:

Elective refers to a course which is required for graduation but does not meet a core or major requirement.

Approved Elective refers to a course which is required to meet major requirements but must be selected from a list of approved courses provided by the individual department.

Non-departmental Elective refers to a course which is required for graduation, does not meet core or major requirements, and must be taken outside the major department. Students are encouraged to study areas outside the major to ensure as broad an education as is practical.

In addition to providing the student with a sound foundation in the discipline, course work offered in each major course of study stresses written and oral communications and ensures that each student is able to use the computer as a tool within the discipline.

# Courses of Study

The following pages contain a detailed schedule of the curriculum required for each degree according to the major subject selected. The clock hours and the credit value of each course are noted. The individual courses are described under the appropriate departmental heading in the pages following the schedules.

The geography and geology courses are offered in the Department of Chemistry, the fine arts in the Department of Education, philosophy in the Department of English, computer science in the Department of Mathematics and Computer Science, and sociology and anthropology in the Department of Political Science.

Major work is offered in the following areas: biology, business administration, chemistry, civil engineering, computer science, criminal justice, education, electrical engineering, English, French, German, health and physical education, history, mathematics, physics, political science, psychology, and Spanish. A thorough premedical preparation is also available through the B.A. Chemistry or the biology major.

## BIOLOGY MAJOR
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| Introduction to Biology I | BIOL | 120 | 4 | (3,3) |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Laboratory I | CHEM | 161 | 1 | (0,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Organic Chemistry I | CHEM | 207 | 3 | (3,0) |
| Organic Chemistry Laboratory I | CHEM | 217 | 1 | (0,3) |
| Cell Biology | BIOL | 205 | 3 | (3,0) |
| Statistical Methods | STAT | 160 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (0,2) |
| JUNIOR YEAR | | | | |
| A Modern Language | | | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| **Approved Elective | BIOL | | 3(4) | |
| Physics for Biology and Premedicine | PHYS | 205 | 3 | (3,0) |
| Physics for Biology and Premedicine Lab | PHYS | 255 | 1 | (0,2) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Senior Seminar | BIOL | 411 | 1 | (1,0) |
| **Approved Elective | BIOL | | 3(4) | |
| **Approved Elective | BIOL | | 3(4) | |
| Social Science Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

**Approved Electives must include at least one course from each of the following four areas. Physiology: BIOL 403; Field Biology: BIOL 314, BIOL 321, BIOL 408, BIOL 409, BIOL 410, BIOL 426; Developmental Biology: BIOL 208, BIOL 401, BIOL 424; and at least two courses from Descriptive Biology: BIOL 203, BIOL 204, BIOL 301, BIOL 302, BIOL 307, BIOL 309, BIOL 310, BIOL 322, BIOL 402, BIOL 405, BIOL 419. It is recommended that biology majors take at least one advanced botany and one advanced zoology course.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## BIOLOGY MAJOR
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus | MATH | 107 | 3 | (3,0) |
| Introduction to Biology II | BIOL | 121 | 4 | (3,3) |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Laboratory II | CHEM | 162 | 1 | (0,2) |
| Microcomputer Applications | CSCI | 110 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Organic Chemistry II | CHEM | 208 | 3 | (3,0) |
| Organic Chemistry Laboratory II | CHEM | 218 | 1 | (0,3) |
| Genetics | BIOL | 308 | 4 | (3,3) |
| *Approved Elective | BIOL | | 3(4) | |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| A Modern Language | | | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Ecology | BIOL | 406 | 4 | (2,4) |
| Physics for Biology and Premedicine | PHYS | 206 | 3 | (3,0) |
| Physics for Biology and Premedicine Lab | PHYS | 256 | 1 | (0,2) |
| Elective | | | 3 | |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Public Speaking | ENGL | 205 | 3 | (3,0) |
| **Approved Elective | BIOL | | 3(4) | |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| **Approved Elective | BIOL | | 3 (4) | |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: Required hours for the biology major vary from 128 to 134 (depending on choice of electives), plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## BUSINESS ADMINISTRATION MAJOR

### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Microcomputer Applications | CSCI | 110 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| **Principles of Macroeconomics | BADM | 201 | 3 | (3,0) |
| **Applied Calculus I | MATH | 106 | 3 | (3,0) |
| Intro to Fin. Acct. and Reporting | BADM | 211 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Biology, Chemistry or Physics | | | 4 | (3,2) |
| **Legal and Ethical Environment of Business | BADM | 305 | 3 | (3,0) |
| **Communications in Business | BADM | 316 | 3 | (3,0) |
| Principles of Management | BADM | 325 | 3 | (3,0) |
| Business Elective | BADM | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Production Management | BADM | 410 | 3 | (3,0) |
| Business Elective | BADM | | 3 | (3,0) |
| Business Elective | BADM | | 3 | (3,0) |
| **Non-Departmental Elective | | | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**May be taken in either semester.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## BUSINESS ADMINISTRATION MAJOR
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature .......................... | ENGL | 102 | 3 | (3,0) |
| Biology, Chemistry, or Physics .................... | | | 4 | (3,2) |
| Finite Mathematics ...................................... | MATH | 105 | 3 | (3,0) |
| A Modern Language ..................................... | | | 3 | (3,0) |
| +1st Year Basic ROTC ................................ | | | | |
| Required Physical Education ........................ | RPED | 251 | 2 | (2,0) |
| SOPHOMORE YEAR | | | | |
| Major British Writers .................................. | ENGL | 202 | 3 | (3,0) |
| History of Western Civilization ................... | HIST | 104 | 3 | (3,0) |
| A Modern Language ..................................... | | | 3 | (3,0) |
| **Principles of Microeconomics ................. | BADM | 202 | 3 | (3,0) |
| **Business Statistics I ................................. | BADM | 205 | 3 | (3,0) |
| Accounting for Decision-Making ................ | BADM | 212 | 3 | (3,0) |
| +2nd Year Basic ROTC ............................... | | | | |
| Required Physical Education ........................ | RPED | | 0 | (0,1) |
| JUNIOR YEAR | | | | |
| Biology, Chemistry or Physics ..................... | | | 4 | (3,2) |
| Organization Theory and Behavior .............. | BADM | 328 | 3 | (3,0) |
| **Marketing Principles .............................. | BADM | 309 | 3 | (3,0) |
| **Business Computer Applications ............ | BADM | 317 | 3 | (3,0) |
| **Business Finance .................................... | BADM | 321 | 3 | (3,0) |
| +1st Year Advanced ROTC ......................... | | | | |
| SENIOR YEAR | | | | |
| **Strategic Management ............................. | BADM | 422 | 3 | (3,0) |
| **Social Science Core Course ...................... | | | 3 | (3,0) |
| Business Elective ......................................... | BADM | | 3 | (3,0) |
| Business Elective ......................................... | BADM | | 3 | (3,0) |
| Non-Departmental Elective ......................... | | | 3 | (3,0) |
| +2nd Year Advanced ROTC ........................ | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## BUSINESS ADMINISTRATION MAJOR
### Accounting Concentration
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Microcomputer Applications | CSCI | 110 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| **Applied Calculus I | MATH | 106 | 3 | (3,0) |
| **Principles of Macroeconomics | BADM | 201 | 3 | (3,0) |
| Intro to Fin. Acct. and Reporting | BADM | 211 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Biology, Chemistry or Physics | | | 4 | (3,2) |
| Intermediate Financial Accounting I | BADM | 300 | 3 | (3,0) |
| Legal and Ethical Environment of Business | BADM | 305 | 3 | (3,0) |
| Managerial Accounting | BADM | 302 | 3 | (3,0) |
| Marketing Principles | BADM | 309 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Production Management | BADM | 410 | 3 | (3,0) |
| Auditing | BADM | 416 | 3 | (3,0) |
| Accounting Information Systems | BADM | 427 | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**May be taken in either semester.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## BUSINESS ADMINISTRATION MAJOR
### Accounting Concentration
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| **Business Statistics I | BADM | 205 | 3 | (3,0) |
| **Principles of Microeconomics | BADM | 202 | 3 | (3,0) |
| Accounting for Decision-Making | BADM | 212 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Biology, Chemistry or Physics | | | 4 | (3,2) |
| Intermediate Financial Accounting II | BADM | 301 | 3 | (3,0) |
| Commercial Law | BADM | 318 | 3 | (3,0) |
| **Business Finance | BADM | 321 | 3 | (3,0) |
| Organization Theory and Behavior | BADM | 328 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Strategic Management | BADM | 422 | 3 | (3,0) |
| **Social Science Core Course | | | 3 | (3,0) |
| Advanced Financial Accounting | BADM | 402 | 3 | (3,0) |
| Income Taxation | BADM | 312 | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## B.S. CHEMISTRY MAJOR

### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Laboratory I | CHEM | 161 | 1 | (0,3) |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Organic Chemistry I | CHEM | 207 | 3 | (3,0) |
| Organic Chemistry Laboratory I | CHEM | 217 | 1 | (0,3) |
| Analytic Geometry and Calculus III | MATH | 231 | 4 | (4,0) |
| A Modern Language | | | 3 | (3,0) |
| Introduction To Computer Applications or | CSCI | 115 | | |
| Microcomputer Applications | CSCI | 110 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Quantitative Analysis | CHEM | 300 | 4 | (3,3) |
| Physical Chemistry I | CHEM | 305 | 3 | (3,0) |
| Physical Chemistry Laboratory I | CHEM | 315 | 1 | (0,3) |
| Physics for Engineers and Physical Scientists | PHYS | 211 | 3 | (3,0) |
| Physics for Engineers and Physical Scientists Laboratory | PHYS | 261 | 1 | (0,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Inorganic Chemistry I | CHEM | 401 | 3 | (3,0) |
| Biochemistry or | CHEM | 409 | | |
| Special Topics in Chemistry | CHEM | 403 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Senior Research | CHEM | 419 | 2 | |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## B.S. CHEMISTRY MAJOR

### Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Laboratory II | CHEM | 162 | 1 | (0,3) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Physics for Engineers and Physical Scientists | PHYS | 210 | 3 | (3,0) |
| Physics Laboratory for Engineers and Physical Scientists | PHYS | 260 | 1 | (0,2) |
| Differential Equations | MATH | 232 | 3 | (3,0) |
| Organic Chemistry II | CHEM | 208 | 3 | (3,0) |
| Organic Chemistry Laboratory II | CHEM | 218 | 1 | (0,3) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Physics for Engineers and Physical Scientists | PHYS | 212 | 3 | (3,0) |
| Physics for Engineers and Physical Scientists Laboratory | PHYS | 262 | 1 | (0,2) |
| Instrumental Methods | CHEM | 302 | 4 | (2,4) |
| Physical Chemistry II | CHEM | 306 | 3 | (3,0) |
| Chemical Information | CHEM | 308 | 1 | (1,0) |
| Physical Chemistry Laboratory II | CHEM | 316 | 1 | (0,3) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Inorganic Chemistry II | CHEM | 402 | 3 | (3,0) |
| Preparation and Characterization of Inorganic and Organic Compounds | CHEM | 412 | 2 | (0,6) |
| Spectra and Identification of Organic Compounds | CHEM | 408 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Senior Research Project | CHEM | 420 | 2 | |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## B.A. CHEMISTRY MAJOR

### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Laboratory I | CHEM | 161 | 1 | (0,3) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Organic Chemistry I | CHEM | 207 | 3 | (3,0) |
| Organic Chemistry Laboratory I | CHEM | 217 | 1 | (0,3) |
| Physics for Biology and Premedicine | PHYS | 205 | 3 | (3,0) |
| Physics for Biology and Premedicine Laboratory | PHYS | 255 | 1 | (0,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Quantitative Analysis | CHEM | 300 | 4 | (3,3) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Physical Chemistry I | CHEM | 305 | 3 | (3,0) |
| Physical Chemistry Laboratory I | CHEM | 315 | 1 | (0,3) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Basic Inorganic Chemistry | CHEM | 401 | 3 | (3,0) |
| Chemistry Senior Thesis | CHEM | 425 | 2 | (2,0) |
| Approved Elective | CHEM | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

ROTC hours (credit, lectures, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## B.A. CHEMISTRY MAJOR
### Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0)* |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Laboratory II | CHEM | 162 | 1 | (0,3) |
| Applied Calculus II | MATH | 107 | 3 | (3,0) |
| Introduction to Computer Applications or | CSCI | 115 | 3 | (3,0) |
| Microcomputer Applications | CSCI | 110 | | |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Organic Chemistry II | CHEM | 208 | 3 | (3,0) |
| Organic Chemistry Laboratory II | CHEM | 218 | 1 | (0,3) |
| Physics for Biology and Premedicine | PHYS | 206 | 3 | (3,0) |
| Physics for Biology and Premedicine Lab | PHYS | 256 | 1 | (0,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Physical Chemistry II | CHEM | 306 | 3 | (3,0) |
| Physical Chemistry Laboratory II | CHEM | 316 | 1 | (0,3) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Instrumental Methods | CHEM | 302 | 4 | (2,4) |
| Chemical Literature | CHEM | 308 | 1 | (1,0) |
| Social Science Core Course | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Chemistry Senior Thesis | CHEM | 426 | 2 | (2,0) |
| Approved Elective | CHEM | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## CIVIL ENGINEERING MAJOR

### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Laboratory I | CHEM | 161 | 1 | (0,2) |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| Engineering Drawing | CIVL | 101 | 2 | (0,4) |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| +1st Year Basic ROTC | | | | |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Physics for Engineers & Physical Scientists | PHYS | 210 | 3 | (3,0) |
| Physics for Engineers & Physical Scientists Lab | PHYS | 260 | 1 | (0,2) |
| Analytic Geometry and Calculus III | MATH | 231 | 4 | (4,0) |
| Surveying | CIVL | 205 | 3 | (3,0) |
| Surveying Laboratory | CIVL | 235 | 1 | (0,2) |
| Computer Application for Civil and Environmental Engineers | CIVL | 209 | 2 | (1,2) |
| Required Physical Education | RPED | | 0 | (0,1) |
| +2nd Year Basic ROTC | | | | |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Dynamics | CIVL | 301 | 3 | (3,0) |
| Mechanics of Materials | CIVL | 304 | 3 | (3,0) |
| Transportation Engineering | CIVL | 305 | 3 | (3,0) |
| Materials Laboratory | CIVL | 307 | 1 | (0,2) |
| Introduction to Environmental Engineering | CIVL | 312 | 3 | (3,0) |
| Engineering Administration | CIVL | 314 | 2 | (2,0) |
| Geology for Engineers | GEOL | 303 | 3 | (2,2) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Reinforced Concrete Design | CIVL | 404 | 3 | (3,0) |
| Water and Wastewater Systems | CIVL | 408 | 3 | (3,0) |
| Introduction to Geotechnical Engineering | CIVL | 409 | 3 | (3,0) |
| Fluid Mechanics Laboratory | CIVL | 418 | 1 | (0,2) |
| Senior Research I | CIVL | 430 | 1 | (1,0) |
| Social Science Core Course | | | 3 | (3,0) |
| ****Technical Elective | | | 3 | |
| +2nd Year Advanced ROTC | | | | |

+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.
*Represents semester credit, lecture, and laboratory hours, in that order.
**Select CIVL 422, CIVL 423, CIVL 424, or CIVL 425.
***To be selected from an approved two semester sequence in humanities or social sciences at least one course must be at the advanced level.

## CIVIL ENGINEERING MAJOR

### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Laboratory II | CHEM | 162 | 1 | (0,2) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Introduction to Civil and Environmental Engineering | CIVL | 102 | 2 | (0,4) |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| +1st Year Basic ROTC | | | | |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Physics for Engineers & Physical Scientists | PHYS | 212 | 3 | (3,0) |
| Physical for Engineers and Physical Scientists Laboratory | PHYS | 262 | 1 | (0,2) |
| Applied Mathematics I | MATH | 234 | 4 | (4,0) |
| Statics | CIVL | 202 | 3 | (3,0) |
| Geomatics | CIVL | 207 | 2 | (2,0) |
| Geomatics Laboratory | CIVL | 237 | 1 | (0,2) |
| Required Physical Education | RPED | | 0 | (0,1) |
| +2nd Year Basic ROTC | | | | |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Highway Engineering | CIVL | 302 | 3 | (3,0) |
| Asphalt and Concrete Laboratory | CIVL | 327 | 1 | (0,2) |
| Structural Analysis | CIVL | 309 | 4 | (4,0) |
| Hydrology and Water Resources | CIVL | 313 | 3 | (3,0) |
| Fluid Mechanics | CIVL | 315 | 3 | (3,0) |
| Elements of Electrical Engineering | ELEC | 308 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Geotechnical Laboratory | CIVL | 402 | 1 | (0,2) |
| Geotechnical Engineering II | CIVL | 410 | 3 | (3,0) |
| Steel Design | CIVL | 406 | 3 | (3,0) |
| Environmental Engineering Laboratory | CIVL | 419 | 1 | (0,2) |
| **Civil Engineering Design Elective | CIVL | | 3 | (2,2) |
| Senior Research II | CIVL | 431 | 1 | |
| ***Humanities/Social Science | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 133 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

****Elective to be an approved engineering or science course.

## COMPUTER SCIENCE MAJOR
### First Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| A Modern Language | | | 3 | (3,0) |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Introduction to Discrete Structures | MATH | 206 | 3 | (3,0) |
| ++Biology, Chemistry or Physics | | | 4 | (3,2) |
| Introduction to Computer Science II | CSCI | 202 | 4 | (3,2) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Database Design and File Structure | CSCI | 320 | 3 | (3,0) |
| ++Biology, Chemistry or Physics | | | 4 | (3,2) |
| Introduction to Probability and Statistics | STAT | 361 | 3 | (3,0) |
| Computer Organization & Programming | CSCI | 262 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Digital Logic and Circuits | ELEC | 311 | 3 | (3,0) |
| Operating Systems and Computer | CSCI | 405 | 3 | (3,0) |
| +++Approved Elective | CSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

**Any mathematics course numbered at the 200 level or above.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Science must be CHEM 151 (161)/CHEM 152 (162) or BIOL 101 (111)/BIOL 102 (112) or PHYS 210 (260)/PHYS 211 (261) or PHYS 212 (262).

+++Any computer science course numbered at 300 or 400 level.

## COMPUTER SCIENCE MAJOR

### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Introduction to Computer Science I | CSCI | 201 | 4 | (3,2) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| ++Biology, Chemistry or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| Data Structures | CSCI | 315 | 3 | (3,0) |
| Linear Algebra | MATH | 240 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Mathematics Elective | MATH | | 3 | (3,0) |
| ++Biology, Chemistry or Physics | | | 4 | (3,2) |
| +++Approved Elective | CSCI | | 3 | (3,0) |
| Programming Languages | CSCI | 355 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Digital Systems Engineering | ELEC | 330 | 3 | (3,0) |
| Senior Seminar in Computer Science | CSCI | 492 | 1 | (1,0) |
| +++Approved Elective | CSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## CRIMINAL JUSTICE MAJOR
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Introduction to Criminal Justice | CRMJ | 201 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| American Politics and Government | PSCI | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Police Systems and Practices | CRMJ | 370 | 3 | (3,0) |
| Cluster A Elective | | | 3 | (3,0) |
| Cluster C Elective | PSCI | | 3 | (3,0) |
| 1 Course, U.S. History Elective | HIST | | 3 | (3,0) |
| 1 Course, General Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Cluster A Elective | | | 3 | (3,0) |
| Cluster A Elective | | | 3 | (3,0) |
| Cluster B Elective | | | 3 | (3,0) |
| 1 course, General Elective | | | 3 | (3,0) |
| 1 course, General Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## CRIMINAL JUSTICE MAJOR
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Criminology | SOCI | 302 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| 1 course, U.S. History elective | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Corrections | CRMJ | 380 | 3 | (3,0) |
| Cluster A Elective | | | 3 | (3,0) |
| Cluster B Elective | | | 3 | (3,0) |
| Cluster C Elective | PSCI | | 3 | (3,0) |
| 1 Course, General Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Cluster A Elective | | | 3 | (3,0) |
| Cluster B Elective | | | 3 | (3,0) |
| Cluster C Elective | PSCI | | 3 | (3,0) |
| 1 Course, General Elective | | | 3 | (3,0) |
| 1 Course, General Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## EDUCATION MAJOR
## (Biology)
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| Introduction to Biology I | BIOL | 120 | 4 | (3,3) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Introduction to Chemistry I | CHEM | 103 | 3 | (3,0) |
| Introduction to Chemistry Lab I | CHEM | 113 | 1 | (0,2) |
| General Anthropology | ANTH | 201 | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| Introduction to Earth Science I | GEOL | 201 | 3 | (3,0) |
| Introduction to Earth Science Lab I | GEOL | 211 | 1 | (0,2) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| General Psychology | PSYC | 201 | 3 | (3,0) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| Genetics | BIOL | 308 | 3 | (3,0) |
| Cell Biology | BIOL | 205 | 3 | (3,0) |
| Physics for Biology and Premedicine | PHYS | 205 | 3 | (3,0) |
| Physics for Biology and Premedicine Lab | PHYS | 255 | 1 | (0,2) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Methods and Materials of Secondary School Teaching | EDUC | 401 | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| Microbiology | BIOL | 310 | 4 | (3,3) |
| Ecology | BIOL | 406 | 4 | (2,4) |
| Biology Elective | BIOL | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduate requirements may not exceed 16 semester hours.

## EDUCATION MAJOR
## (Biology)
## Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus II | MATH | 107 | 3 | (3,0) |
| Introduction to Biology II | BIOL | 121 | 4 | (3,3) |
| General Biology Laboratory II | BIOL | 112 | 1 | (0,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Education in Modern Society | EDUC | 101 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Introduction to Chemistry II | CHEM | 104 | 3 | (3,0) |
| Introduction to Chemistry Lab II | CHEM | 114 | 1 | (0,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| Human Physiology | BIOL | 304 | 4 | (3,2) |
| Evolution | BIOL | 208 | 3 | (3,0) |
| Physics for Biology and Premedicine | PHYS | 206 | 3 | (3,0) |
| Physics for Biology and Premedicine Lab | PHYS | 256 | 1 | (0,2) |
| +1st Year and 2nd Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| **Internship in Teaching | EDUC | 499 | 12 | |
| **Special Methods in Teaching | EDUC | 402 | 3 | (3,0) |

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## EDUCATION MAJOR
## (English)
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| Social Studies (other than History) | | | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| Introduction to Public Speaking | ENGL | 205 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| General Psychology | PSYC | 201 | 3 | (3,0) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| +++American Literature Elective | ENGL | | 3 | (3,0) |
| Survey of World Literature | ENGL | 405 | 3 | (3,0) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Methods and Materials of Secondary School Teaching | EDUC | 401 | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| The English Language | ENGL | 415 | 3 | (3,0) |
| Adolescent Literature | ENGL | 425 | 3 | (3,0) |
| Approved Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+++Select from ENGL 341, 342, 343, and 344.

## EDUCATION MAJOR
## (English)
## Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| General Biology II | BIOL | 102 | 3 | (3,0) |
| General Biology Laboratory II | BIOL | 112 | 1 | (0,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Education in Modern Society | EDUC | 101 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| | | | | |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| | | | | |
| JUNIOR YEAR | | | | |
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| Principles of Literary Criticism | ENGL | 407 | 3 | (3,0) |
| Effective Writing | ENGL | 413 | 3 | (3,0) |
| Modern English Grammar | ENGL | 414 | 3 | (3,0) |
| +++American Literature Elective | ENGL | | 3 | (3,0) |
| +1st Year and 2nd Year Advanced ROTC | | | | |
| | | | | |
| SENIOR YEAR | | | | |
| **Internship in Teaching | EDUC | 499 | 12 | |
| **Special Methods in Teaching | EDUC | 402 | 3 | (3,0) |

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## EDUCATION MAJOR
### (History)
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| World Geography | GEOG | 209 | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| Survey of American History | HIST | 201 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| General Psychology | PSYC | 201 | 3 | (3,0) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| Social Science Core Course (PSYC 209) | | | 3 | (3,0) |
| Latin American History | HIST | 451 | 3 | (3,0) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Methods and Materials of Secondary School Teaching | EDUC | 401 | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| History of Modern Russia | HIST | 424 | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| Approved Elective | | | 3 | (3,0) |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## EDUCATION MAJOR
### (History)
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| General Biology II | BIOL | 102 | 3 | (3,0) |
| General Biology Laboratory II | BIOL | 112 | 1 | (0,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Education in Modern Society | EDUC | 101 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| | | | | |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| Survey of American History | HIST | 202 | 3 | (3,0) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| | | | | |
| JUNIOR YEAR | | | | |
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| The New South | HIST | 407 | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| Approved Elective | | | 3 | (3,0) |
| +1st Year and 2nd Year Advanced ROTC | | | | |
| | | | | |
| SENIOR YEAR | | | | |
| **Internship in Teaching | EDUC | 499 | 12 | |
| **Special Methods in Teaching | EDUC | 402 | 3 | (3,0) |

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## EDUCATION MAJOR
### (Mathematics)
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| Introduction to Discrete Structures | MATH | 206 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Introduction to Probability and Statistics | STAT | 361 | 3 | (3,0) |
| Introduction to Computer Science I | CSCI | 201 | 4 | (3,2) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| Linear Algebra | MATH | 240 | 3 | (3.0) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Methods and Materials of Secondary School Teaching | EDUC | 401 | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| Modern Algebra I | MATH | 303 | 3 | (3,0) |
| Mathematical Models and Appl. | MATH | 470 | 3 | (3,0) |
| History of Mathematics | MATH | 412 | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## EDUCATION MAJOR
## (Mathematics)
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| General Biology II | BIOL | 102 | 3 | (3,0) |
| General Biology Laboratory II | BIOL | 112 | 1 | (0,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Education in Modern Society | EDUC | 101 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| Analytic Geometry and Calculus III | MATH | 231 | 4 | (4,0) |
| Social Studies (other than History) | | | 3 | (3,0) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Differential Equations | MATH | 232 | 3 | (3.0) |
| Modern Geometry | MATH | 305 | 3 | (3.0) |
| General Psychology | PSYC | 201 | 3 | (3,0) |
| +1st Year and 2nd Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Internship in Teaching | EDUC | 499 | 12 | |
| **Special Methods in Teaching | EDUC | 402 | 3 | (3,0) |

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## EDUCATION MAJOR
### (Science)
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Analytic Geometry & Calculus I | MATH | 131 | 4 | (4,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Lab I | CHEM | 161 | 1 | (0,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| Astronomy | ASTR | 201 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| General Psychology | PSYC | 201 | 3 | (3,0) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| Introduction to Earth Science I | GEOL | 201 | 3 | (3,0) |
| Introduction to Earth Science Lab I | GEOL | 211 | 1 | (0,2) |
| Physics for Engineers and Scientists | PHYS | 210 | 3 | (3,0) |
| Physics for Engineers and Scientists Lab | PHYS | 260 | 1 | (0,2) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Methods and Materials of Secondary School Teaching | EDUC | 401 | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| Physics for Engineers and Scientists | PHYS | 212 | 3 | (3,0) |
| Physics for Engineers and Scientists Lab | PHYS | 262 | 1 | (0,2) |
| Genetics | BIOL | 308 | 4 | (3,2) |
| +++Science Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+++GEOL 308 or BIOL 409.

## EDUCATION MAJOR
### (Science)
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| General Biology II | BIOL | 102 | 3 | (3,0) |
| General Biology Laboratory II | BIOL | 112 | 1 | (0,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Education in Modern Society | EDUC | 101 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Lab II | CHEM | 162 | 1 | (0,2) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Social Studies (other than History) | | | 3 | (3,0) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| Introduction to Earth Science II | GEOL | 202 | 3 | (3,0) |
| Introduction to Earth Science Lab II | GEOL | 212 | 1 | (0,2) |
| Physics for Engineers and Scientists | PHYS | 211 | 3 | (3,0) |
| Physics for Engineers and Scientists Lab | PHYS | 261 | 1 | (0,2) |
| Organic Chemistry I | CHEM | 207 | 3 | (3,0) |
| Organic Chemistry Lab I | CHEM | 217 | 1 | (0,3) |
| +1st Year and 2nd Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Internship in Teaching | EDUC | 499 | 12 | |
| **Special Methods in Teaching | EDUC | 402 | 3 | (3,0) |

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## EDUCATION MAJOR
### (Social Studies)
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| American National Government | PSCI | 102 | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| Introduction to Sociology | SOCI | 201 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| General Psychology | PSYC | 201 | 3 | (3,0) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| Survey of American History | HIST | 201 | 3 | (3,0) |
| Cultural Anthropology | ANTH | 202 | 3 | (3,0) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Methods and Materials of Secondary School Teaching | EDUC | 401 | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| +++Approved Social Studies Elective | | | 3 | (3,0) |
| +++Approved Social Studies Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+++Selected from anthropology, geography, political science, economics, psychology, or history.

## EDUCATION MAJOR
## (Social Studies)
## Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| General Biology II | BIOL | 102 | 3 | (3,0) |
| General Biology Laboratory II | BIOL | 112 | 1 | (0,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Education in Modern Society | EDUC | 101 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Chemistry or Physics | | | 4 | (3,2) |
| Principles of Macroeconomics | BADM | 201 | 3 | (3,0) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| Survey of American History | HIST | 202 | 3 | (3,0) |
| World Geography | GEOG | 209 | 3 | (3,0) |
| Urban Politics | PSCI | 302 | 3 | (3,0) |
| Social Science Core Course (PSYC 209 or SOCI 210) | | | 3 | |
| +1st Year and 2nd Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| **Internship in Teaching | EDUC | 499 | 12 | |
| **Special Methods in Teaching | EDUC | 402 | 3 | (3,0) |

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## ELECTRICAL ENGINEERING MAJOR

### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Laboratory I | CHEM | 161 | 1 | (0,2) |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| Engineering Fundamentals I | ELEC | 104 | 2 | (2,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Analytic Geometry and Calculus III | MATH | 231 | 4 | (4,0) |
| Physics for Engineers and Physical Scientists | PHYS | 210 | 3 | (3,0) |
| Physics for Engineers and Physical Scientists Laboratory | PHYS | 260 | 1 | (0,2) |
| Electric Circuit Analysis I | ELEC | 201 | 3 | (3,0) |
| Computer Applications for Electrical Engineers | ELEC | 206 | 2 | (2,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Applied Mathematics II | MATH | 335 | 3 | (3,0) |
| Linear Circuit Analysis | ELEC | 309 | 3 | (3,0) |
| Engineering Administration | CIVL | 314 | 2 | (2,0) |
| Digital Logic and Circuits | ELEC | 311 | 3 | (3,0) |
| Electronics I | ELEC | 306 | 3 | (3,0) |
| Linear Circuits Laboratory | ELEC | 301 | 1 | (0,2) |
| Electronics Laboratory | ELEC | 313 | 1 | (0,2) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Design I | ELEC | 421 | 3 | (1,4) |
| **Non-Departmental Elective | | | 3 | (3,0) |
| Applied Probability and Statistics for Engineers | ELEC | 412 | 3 | (3,0) |
| ***Approved Department Elective | ELEC | 4XX | 3 | (3,0) |
| ***Approved Department Elective | ELEC | 4XX | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit. Lecture, laboratory hours, in that order.

**Advanced humanitites or social science course.

***APPROVED ELECTIVES must be selected from among the following courses: ELEC 401, ELEC 403, ELEC 405, ELEC 407, ELEC 413, ELEC 414, ELEC 415, ELEC 416, ELEC 423, ELEC 424, and ELEC 426.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## ELECTRICAL ENGINEERING MAJOR

### Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Laboratory II | CHEM | 162 | 1 | (0,2) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Engineering Fundamentals II | ELEC | 105 | 2 | (2,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Applied Mathematics I | MATH | 234 | 4 | (4,0) |
| Physics for Engineers and Physical Scientists | PHYS | 212 | 3 | (3,0) |
| Physics for Engineers and Physical Scientists Laboratory | PHYS | 262 | 1 | (0,2) |
| Electric Circuit Analysis II | ELEC | 202 | 3 | (3,0) |
| Electrical Laboratory | ELEC | 204 | 1 | (0,2) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Systems I | ELEC | 312 | 3 | (3,0) |
| Electromechanical Energy Conversion | ELEC | 316 | 3 | (3,0) |
| Digital Systems Engineering | ELEC | 330 | 3 | (3,0) |
| Electrical Machinery Laboratory | ELEC | 302 | 1 | (0,2) |
| ++Technical Elective | | | 3 | (3,0) |
| Electromagnetic Fields | ELEC | 318 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Design II | ELEC | 422 | 3 | (1,4) |
| Social Science Core Course | | | 3 | (3,0) |
| ***Approved Elective | ELEC | | 3 | (3,0) |
| ***Approved Elective | ELEC | | 3 | (3,0) |
| ***Approved Elective | ELEC | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

++Technical Elective: Optics (PHYS 308), Nuclear Engineering (ELEC 307), Software Engineering (CSCI 420), or Thermodynamics (PHYS 410), Engineering Mechanics (CIVL 310).

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## ENGLISH MAJOR
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Survey of British Literature I | ENGL | 203 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Mythology, or | ENGL | 211 | 3 | (3,0) |
| The Bible as Literature | ENGL | 212 | | |
| Social Science Core | | | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Shakespeare I, or | ENGL | 303 | 3 | (3,0) |
| Shakespeare II | ENGL | 304 | | |
| Approved Elective (ENGL 325-336) | ENGL | | 3 | (3,0) |
| Approved Elective (ENGL 301-499) | ENGL | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| American Literature Elective (ENGL 341-347) | ENGL | | 3 | (3,0) |
| Approved Elective (ENGL 310-324) | ENGL | | 3 | (3,0) |
| Approved Elective (ENGL 301-499) | ENGL | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## ENGLISH MAJOR
### Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Survey of British Literature II | ENGL | 204 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Introduction to Philosophy | PHIL | 201 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Chaucer, or | ENGL | 301 | 3 | (3,0) |
| Milton | ENGL | 305 | | |
| Approved Elective (ENGL 349-499) | ENGL | | 3 | (3,0) |
| Approved Elective (ENGL 301-499) | ENGL | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| American Literature Elective (ENGL 341-347) | ENGL | | 3 | (3,0) |
| Approved Elective (ENGL 349-499) | ENGL | | 3 | (3,0) |
| Approved Elective (ENGL 301-499) | ENGL | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## FRENCH MAJOR
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Elementary French Communications I | FREN | 101 | 3 | (3,0)* |
| Composition and Literature | ENGL | 101 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Intermediate French Communication | FREN | 201 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced French Conversation | FREN | 301 | 3 | (3,0) |
| Advanced Modern Language | FREN | | 3 | (3,0) |
| Introduction to Linguistics | LING | 300 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Modern Language | FREN | | 3 | (3,0) |
| Advanced Modern Language | FREN | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**If both courses are taken, the other may serve as a substitute for an advanced modern language or an elective.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## FRENCH MAJOR
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Elementary French Communication II | FREN | 102 | 3 | (3,0) |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| French Reading, Conversation and Composition | FREN | 202 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced French Composition | FREN | 302 | 3 | (3,0) |
| Advanced Modern Language | FREN | | 3 | (3,0) |
| Advanced Modern Language | FREN | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Grammar, Syntax, & Translation | FREN | 490 | 3 | (3,0) |
| Advanced Modern Language | FREN | | 3 | (3,0) |
| **MLNG 410 or MLNG 420 | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## GERMAN MAJOR

### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Elementary German I | GERM | 101 | 3 | (3,0)* |
| Composition and Literature | ENGL | 101 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Intermediate German I | GERM | 201 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Advanced German Conversation | GERM | 301 | 3 | (3,0) |
| Advanced Modern Language | GERM | | 3 | (3,0) |
| Introduction to Linguistics | LING | 300 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Advanced Modern Language | GERM | | 3 | (3,0) |
| Advanced Modern Language | GERM | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

**If both courses are taken, the other may serve as a substitute for an advanced modern language or an elective.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## GERMAN MAJOR
### Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Elementary German II | GERM | 102 | 3 | (3,0) |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Intermediate German II | GERM | 202 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced German Composition | GERM | 302 | 3 | (3,0) |
| Advanced Modern Language | GERM | | 3 | (3,0) |
| Advanced Modern Language | GERM | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Modern Language | GERM | | 3 | (3,0) |
| Advanced Modern Language | GERM | | 3 | (3,0) |
| **MLNG 410 or MLNG 420 | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

# HEALTH AND PHYSICAL EDUCATION MAJOR
## Teaching Track
## First Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| Introduction to Physical Education | PHED | 101 | 3 | (3,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | 113 | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Physical Science (Chemistry or Physics) | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Music Appreciation | FNAR | 205 | 3 | (3,0) |
| Methods of Teaching Gymnastics | PHED | 220 | 1 | (1,0) |
| Methods of Teaching Rhythmic Activities | PHED | 221 | 1 | (1,0) |
| Basketball Theory | PHED | 224 | 1 | (1,0) |
| Baseball Theory | PHED | 225 | 1 | (1,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Human Anatomy | BIOL | 303 | 3 | (3,0) |
| Human Anatomy Laboratory | BIOL | 305 | 1 | (0,2) |
| Child Development | EDUC | 307 | 3 | (3,0) |
| Adolescent Development | EDUC | 308 | 3 | (3,0) |
| Elective | | | 3 | (3.0) |
| Methods of Teaching Wrestling | PHED | 230 | 1 | (1,0) |
| Track & Field Theory | PHED | 231 | 1 | (1,0) |
| Elementary School Physical Education | PHED | 433 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Special Physical Education | PHED | 403 | 3 | (2,2) |
| Physiology of Exercise | PHED | 419 | 3 | (2,2) |
| Teaching Reading in the Secondary School | EDUC | 208 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Social and Cultural History of the Non-Western World | HIST | 417 | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.
+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## HEALTH AND PHYSICAL EDUCATION MAJOR
### Teaching Track
### Second Semester

### FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0)* |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilivation | HIST | 104 | 3 | (3,0) |
| Learning Theory and Methodology in Physical Education | PHED | 102 | 3 | (2,2) |
| Measurement and Evaluation in Physical Education | PHED | 205 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

### SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Physical Science (Chemistry or Physics) | | | 4 | (3,2) |
| Methods of Teaching Aquatics | PHED | 222 | 1 | (1,0) |
| Methods of Teaching Outdoor Education | PHED | 223 | 1 | (1,0) |
| Football Theory | PHED | 226 | 1 | (1,0) |
| Soccer Theory | PHED | 227 | 1 | (1,0) |
| Art Appreciation | FNAR | 206 | 3 | (3,0) |
| Educational Psychology | EDUC | 202 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

### JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Human Physiology | BIOL | 304 | 3 | (3,0) |
| Human Physiology Laboratory | BIOL | 306 | 1 | (0,2) |
| Biomechanical Kinesiology | PHED | 314 | 3 | (2,2) |
| Social, Cultural, and Philosophical Issues in Education | EDUC | 311 | 3 | (3,0) |
| Care and Prevention of Athletic Injuries | PHED | 402 | 3 | (2,2) |
| Methods of Teaching Lifetime Sports | PHED | 228 | 1 | (1,0) |
| Adult Fitness Programming | PHED | 229 | 1 | (1,0) |
| +1st Year Advanced ROTC | | | | |

### SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Administration of Physical Education | PHED | 404 | 3 | (3,0) |
| Intership in Teaching | PHED | 499 | 12 | |
| Senior Seminar | PHED | 421 | 1 | (1,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 129 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## HEALTH AND PHYSICAL EDUCATION MAJOR
### Professional Track
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| Introduction to Physical Education | PHED | 101 | 3 | (3,0) |
| General Biology I | BIOL | 101 | 3 | (3,0) |
| General Biology Laboratory I | BIOL | 111 | 1 | (0,2) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0.1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Physical Science (Chemistry or Physics) | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| **Approved Elective | | | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Human Anatomy | BIOL | 303 | 3 | (3,0) |
| Human Anatomy Laboratory | BIOL | 305 | 1 | (0,2) |
| First Aid and Emergency Care | HLED | 300 | 3 | (3,0) |
| **Approved Elective | | | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| **Approved Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Special Physical Education | PHED | 403 | 3 | (2,2) |
| Physiology of Exercise | PHED | 419 | 4 | (3,2) |
| **Approved Elective | | | 3 | (3,0) |
| **Approved Elective | | | 3 | (3,0) |
| **Approved Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**Approved Electives are determined by the professional track selected, Health/Wellness or Sports Management/Administration. A complete list of Approved Electives is available in the section of this catalog on Department of Health and Physical Education.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## HEALTH AND PHYSICAL EDUCATION MAJOR
### Professional Track
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Learning Theory and Methodology in Physical Education | PHED | 102 | 3 | (2,2) |
| Measurement and Evaluation in Physical Education | PHED | 205 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Physical Science (Chemistry or Physics) | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| Developmental Psychology | PSYC | 202 | 3 | (3,0) |
| Introduction to Public Speaking | ENGL | 205 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Edcucation | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Human Physiology | BIOL | 304 | 3 | (3,0) |
| Human Physiology Laboratory | BIOL | 306 | 1 | (0,2) |
| Care and Prevention of Athletic Injuries | PHED | 402 | 3 | (2,2) |
| Biomechanical Kinesiology | PHED | 314 | 3 | (2,2) |
| A Modern Language | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Nutrition | HLED | 401 | 3 | (3,0) |
| Administration of Physical Education | PHED | 404 | 3 | (3,0) |
| Drug and Substance Abuse | HLED | 402 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Directed Field Experience | PHED | 406 | 3 | (1,6) |
| Senior Seminar | PHED | 421 | 1 | (1,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## HISTORY MAJOR
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| **1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| | | | | |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| American Politics and Government | PSCI | 201 | 3 | (3,0) |
| A Survey of American History | HIST | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| **2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| | | | | |
| JUNIOR YEAR | | | | |
| Group I History Elective | HIST | | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| Group III History Elective | HIST | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| ***1st Year Advanced ROTC | | | | |
| | | | | |
| SENOR YEAR | | | | |
| Group I History Elective | HIST | | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +Approved Elective | PSCI | | 3 | (3,0) |
| **2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

+Must be numbered at the 300 or 400 level.

Group I (EUROPEAN): 321, 322, 324, 325, 326, 327, 328, 421, 422, 423, 424, 435, 481, and 491.

Group II (AMERICAN): 301, 303, 305, 306, 402, 403, 406, 407, 471, 472, 473, 474, and 492.

Group III (LATIN AMERICA AND NON-WESTERN): 417, 425, 450, 451, 452, 462, 463, 466, and 493.

Group IV (DIPLOMATIC/MILITARY): 304, 410, 479, 483, 487, 488, 489, and 494.

## HISTORY MAJOR
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| **1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Introduction to History | HIST | 203 | 3 | (3,0) |
| A Survey of American History | HIST | 202 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| **2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Group II History Elective | HIST | | 3 | (3,0) |
| Group IV History Elective | HIST | | 3 | (3,0) |
| +Approved Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| **1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Group II History Elective | HIST | | 3 | (3,0) |
| History Elective | HIST | | 3 | (3,0) |
| +Approved Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| **2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## B.S. MATHEMATICS MAJOR

### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| A Modern Language | | | 3 | (3,0) |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| ***Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Analytic Geometry and Calculus III | MATH | 231 | 4 | (4,0) |
| Introductory to Discrete Structures | MATH | 206 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| ***Biology, Chemistry or Physics | | | 4 | (3,2) |
| Modern Algebra I | MATH | 303 | 3 | (3,0) |
| Introduction to Probability and Statistics | STAT | 361 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Introduction to Analysis I | MATH | 403 | 3 | (3,0) |
| **Approved Elective | MATH | | 3 | (3,0) |
| **Approved Elective | MATH | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

**Must be numbered at 300 or 400 level and selected in accordance with requirements for the Applied Mathematics or Pure Mathematics Option.

***Science must be CHEM 151 (161)/CHEM 152 (162) or BIOL 101 (111)/BIOL 102 (112) or PHYS 210 (260) and either PHYS 211 (261) or PHYS 212 (262).

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## B.S. MATHEMATICS MAJOR
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Introduction to Computer Science I | CSCI | 201 | 4 | (3,2) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Differential Equations | MATH | 232 | 3 | (3,0) |
| Linear Algebra | MATH | 240 | 3 | (3,0) |
| ***Biology, Chemistry or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| ***Biology, Chemistry or Physics | | | 4 | (3,2) |
| **Approved Elective | MATH | | 3 | (3,0) |
| **Approved Elective | MATH | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Senior Seminar in Mathematics | MATH | 492 | 1 | (1,0) |
| **Approved Elective | MATH | | 3 | (3,0) |
| **Approved Elective | MATH | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.
***See page 176 bottom.

## B.A. MATHEMATICS MAJOR
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Composition and Literature .......................... | ENGL | 101 | 3 | (3,0)* |
| Biology, Chemistry, or Physics .................... | | | 4 | (3,2) |
| Analytic Geometry and Calculus I .............. | MATH | 131 | 4 | (4,0) |
| A Modern Language .................................... | | | 3 | (3,0) |
| +1st Year Basic ROTC ................................ | | | | |
| Required Physical Educaton ........................ | RPED | | 0 | (0,1) |
| | | | | |
| SOPHOMORE YEAR | | | | |
| Major British Writers .................................. | ENGL | 201 | 3 | (3,0) |
| Analytic Geometry and Calculus III............ | MATH | 231 | 4 | (4,0) |
| Elective ....................................................... | | | 3 | (3,0) |
| A Modern Language .................................... | | | 3 | (3,0) |
| Biology, Chemistry, or Physics .................... | | | 4 | (3,2) |
| +2nd Year Basic ROTC ............................... | | | | |
| Required Physical Education ....................... | RPED | 250 | 2 | (2,0) |
| | | | | |
| JUNIOR YEAR | | | | |
| Introduction to Discrete Structures .............. | MATH | 206 | 3 | (3,0) |
| Introduction to Probability and Statistics ..... | STAT | 361 | 3 | (3,0) |
| History of Western Civilization................... | HIST | 103 | 3 | (3,0) |
| Elective ....................................................... | | | 3 | (3,0) |
| Social Science Core Course......................... | | | 3 | (3,0) |
| +1st Year Advanced ROTC......................... | | | | |
| | | | | |
| SENIOR YEAR | | | | |
| Modern Algebra I ........................................ | MATH | 303 | 3 | (3,0) |
| Mathematical Models and Applications ....... | MATH | 470 | 3 | (3,0) |
| Elective ....................................................... | | | 3 | (3,0) |
| Elective ....................................................... | | | 3 | (3,0) |
| Elective ....................................................... | | | 3 | (3,0) |
| +2nd Year Advanced ROTC ....................... | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**Includes any mathematics course numbered at the 300 or 400 level.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## B.A. MATHEMATICS MAJOR
### Second Semester

| | | | | |
|---|---|---|---|---|
| **FRESHMAN YEAR** | | | | |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| **SOPHOMORE YEAR** | | | | |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Differential Equations | MATH | 232 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| **JUNIOR YEAR** | | | | |
| Linear Algebra | MATH | 240 | 3 | (3,0) |
| Introduction to Computer Science I | CSCI | 201 | 4 | (3,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| **SENIOR YEAR** | | | | |
| Senior Seminar in Mathematics | MATH | 492 | 1 | (1,0) |
| **Math Elective | MATH | | 3 | (3,0) |
| **Math Elective | MATH | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 123 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## PHYSICS MAJOR

### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| ++Approved Elective | | | 3 | (3,0)* |
| Analytic Geometry and Calculus I | MATH | 131 | 4 | (4,0) |
| Composition and Literature I | ENGL | 101 | 3 | (3,0) |
| History of Western Civilization I | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Physics for Engineers and Physical Scientists I | PHYS | 210 | 3 | (3,0) |
| Physics Laboratory for Physics I | PHYS | 260 | 1 | (0,2) |
| Analytic Geometry and Calculus III | MATH | 231 | 4 | (4,0) |
| Major British Writers I | ENGL | 201 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Physics Eng & Phys Scientists III | PHYS | 212 | 3 | (3,0) |
| Physics Laboratory for Physics III | PHYS | 262 | 1 | (0,2) |
| Electronic Instrumentation | PHYS | 307 | 3 | (3,0) |
| Electronic Instrumentation Laboratory | PHYS | 357 | 1 | (0,2) |
| Analytical Mechanics I | PHYS | 315 | 3 | (3,0) |
| Applied Mathematics II | MATH | 335 | 3 | (3,0) |
| General Chemistry I | CHEM | 151 | 3 | (3,0) |
| General Chemistry Laboratory I | CHEM | 161 | 1 | (0,2) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Electricity and Magnetism I | PHYS | 403 | 3 | (3,0) |
| Quantum Mechanics I | PHYS | 405 | 3 | (3,0) |
| Advanced Laboratory Physics | PHYS | 451 | 2 | (0,4) |
| Research Planning | PHYS | 419 | 2 | (1,2) |
| +++Approved Elective | | | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

+ROTC hours may vary each semester by military department; however the total hours which may be applied toward graduation requirements may not exceed 16 semester hours

++(PHYS 101, BIOL 101/111, BIOL 102/112, CSCI 115, ASTR 201, ASTR 202, or alternate courses upon the approval of department head)

+++(CHEM 300, PHYS 301, CHEM 305, BIOL 310, MATH 343, PHYS 409, ASTR 412, PHYS 415, PHYS 416, MATH 422, or alternate course upon the approval of department head) Approved Elective can be taken in the fall or spring term.

## PHYSICS MAJOR
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| ++Approved Elective | | | 3 | (3,0) |
| Analytic Geometry and Calculus II | MATH | 132 | 4 | (4,0) |
| Composition and Literature II | ENGL | 102 | 3 | (3,0) |
| History of Western Civilization II | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Physics for Engineers and Physical Scientists II | PHYS | 211 | 3 | (3,0) |
| Physics Laboratory for Physics II | PHYS | 261 | 1 | (0,2) |
| Applied Mathematics I | MATH | 234 | 4 | (4,0) |
| Major British Writers II | ENGL | 202 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Optics | PHYS | 308 | 3 | (3,0) |
| Optics Laboratory | PHYS | 358 | 1 | (0,2) |
| Modern Physics | PHYS | 313 | 3 | (3,0) |
| Analytical Mechanics II | PHYS | 316 | 3 | (3,0) |
| Mathematical Physics | PHYS | 320 | 3 | (3,0) |
| General Chemistry II | CHEM | 152 | 3 | (3,0) |
| General Chemistry Laboratory II | CHEM | 162 | 1 | (0,2) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Electricity and Magnetism | PHYS | 404 | 3 | (3,0) |
| Quantum Mechanics II | PHYS | 406 | 3 | (3,0) |
| Thermodynamics | PHYS | 410 | 3 | (3,0) |
| Senior Research Project | PHYS | 420 | 3 | (1,4) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and lab hours, in that order.

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from the successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## POLITICAL SCIENCE MAJOR
### Subfield A—American Government and Politics
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Introduction to Political Science | PSCI | 101 | 3 | (3,0)* |
| Composition and Literature | ENGL | 101 | 3 | (3,0) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| International Politics | PSCI | 231 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| ++Subfield Required Course | PSCI | 301 | 3 | (3,0) |
| American Politics Elective | PSCI | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Approved Elective | HIST | | 3 | (3,0) |
| Principles of Macroeconomics | BADM | 201 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Constitutional Law: Civil Rights | PSCI | 462 | 3 | (3,0) |
| ++Subfield Required Course | PSCI | 401 | 3 | (3,0) |
| American Politics Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics, International Politics and Military Affairs, or Law and Legal Studies.

## POLITICAL SCIENCE MAJOR
### Subfield A—American Government and Politics
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| American National Government | PSCI | 102 | 3 | (3,0) |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Comparative Politics | PSCI | 232 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Political Theory | PSCI | 392 | 3 | (3,0) |
| ++Subfield Required Course | PSCI | 302 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Approved Elective | HIST | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Approved Elective | PSCI | | 3 | (3,0) |
| ++Subfield Elective | PSCI | | 3 | (3,0) |
| ++Subfield Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## POLITICAL SCIENCE MAJOR
### Subfield B—International Politics and Military Affairs
### First Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| Introduction to Political Science | PSCI | 101 | 3 | (3,0)* |
| Composition and Literature | ENGL | 101 | 3 | (3,0) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| International Politics | PSCI | 231 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| ++Subfield Required Course | PSCI | 331 | 3 | (3,0) |
| American Politics Elective | PSCI | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Approved Elective | HIST | | 3 | (3,0) |
| Principles of Macroeconomics | BADM | 201 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Constitutional Law: Civil Rights | PSCI | 462 | 3 | (3,0) |
| ++Subfield Required Course | PSCI | 431 | 3 | (3,0) |
| American Politics Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics, International Politics and Military Affairs, or Law and Legal Studies.

## POLITICAL SCIENCE MAJOR
### Subfield B—International Politics and Military Affairs
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| American National Government | PSCI | 102 | 3 | (3,0) |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Comparative Politics | PSCI | 232 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Political Theory | PSCI | 392 | 3 | (3,0) |
| ++Subfield Required Course | PSCI | 332 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Approved Elective | HIST | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Approved Elective | PSCI | | 3 | (3,0) |
| ++Subfield Elective | PSCI | | 3 | (3,0) |
| ++Subfield Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## POLITICAL SCIENCE MAJOR
### Subfield C—Law and Legal Studies
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Introduction to Political Science | PSCI | 101 | 3 | (3,0)* |
| Composition and Literature | ENGL | 101 | 3 | (3,0) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| International Politics | PSCI | 231 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| ++Subfield Required Course | PSCI | 361 | 3 | (3,0) |
| American Politics Elective | PSCI | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Approved Elective | HIST | | 3 | (3,0) |
| Principles of Macroeconomics | BADM | 201 | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Constitutional Law: Civil Rights | PSCI | 462 | 3 | (3,0) |
| ++Subfield Required Course | PSCI | 461 | 3 | (3,0) |
| American Politics Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics, International Politics and Military Affairs, or Law and Legal Studies.

## POLITICAL SCIENCE MAJOR
### Subfield C—Law and Legal Studies
### Second Semester

| | | | | |
|---|---|---|---|---|
| FRESHMAN YEAR | | | | |
| American National Government | PSCI | 102 | 3 | (3,0) |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |
| SOPHOMORE YEAR | | | | |
| Comparative Politics | PSCI | 232 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |
| JUNIOR YEAR | | | | |
| Political Theory | PSCI | 392 | 3 | (3,0) |
| ++Subfield Required Course | CRMJ | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Approved Elective | HIST | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |
| SENIOR YEAR | | | | |
| Approved Elective | PSCI | | 3 | (3,0) |
| ++Subfield Elective | PSCI | | 3 | (3,0) |
| ++Subfield Elective | PSCI | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## PSYCHOLOGY MAJOR
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 101 | 3 | (3,0)* |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| General Psychology | PSYC | 201 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Research Design in Psychology | PSYC | 203 | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Physiological Psychology | PSYC | 302 | 4 | (3,2) |
| Theories of Personality | PSYC | 306 | 3 | (3,0) |
| Introduction to Philosophy | PHIL | 201 | 3 | (3,0) |
| Approved Elective | FNAR | | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Psychology of Learning | PSYC | 403 | 3 | (3,0) |
| Industrial/Organizational Psychology or **Approved Elective | PSYC | 404 | | |
| Psychological Testing | PSYC | 407 | 3 | (3,0) |
| Approved Elective | | | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

*Represents semester credit, lecture, and laboratory hours, in that order.

**Students are required to take either PSYC 404 or PSYC 402. An approved elective should be taken in place of the course not selected.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## PSYCHOLOGY MAJOR
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| A Modern Language | | | 3 | (3,0) |
| Developmental Psychology | PSYC | 202 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| A Modern Language | | | 3 | (3,0) |
| Experimental Psychology | PSYC | 301 | 4 | (3,2) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Abnormal Psychology | PSYC | 304 | 3 | (3,0) |
| Social Science Core Course | | | 3 | (3,0) |
| Social Psychology | PSYC | 305 | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| History and Systems of Psychology | PSYC | 405 | 3 | (3,0) |
| Advanced Psychological Study | PSYC | 410 | 3 | (3,0) |
| Cognitive Psychology or **Approved Elective | PSYC | 402 | 3 | (3,0) |
| Approved Elective | | | 3 | (3,0) |
| Non-Departmental Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 126 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.

## SPANISH MAJOR
### First Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Elementary Spanish Communication I | SPAN | 101 | 3 | (3,0)* |
| Composition and Literature | ENGL | 101 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Finite Mathematics | MATH | 105 | 3 | (3,0) |
| History of Western Civilization | HIST | 103 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Intermediate Spanish Communication | SPAN | 201 | 3 | (3,0) |
| Major British Writers | ENGL | 201 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Social Science Core Course | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 250 | 2 | (2,0) |

JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Spanish Conversation | SPAN | 301 | 3 | (3,0) |
| Advanced Modern Language | SPAN | 305 | 3 | (3,0) |
| Introduction to Linguistics | LING | 300 | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Modern Language | SPAN | | 3 | (3,0) |
| Advanced Modern Language | SPAN | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

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*Represents semester credit, lecture, and laboratory hours, in that order.

**If both courses are taken, the other may serve as a substitute for an advanced modern language or an elective.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

## SPANISH MAJOR
### Second Semester

FRESHMAN YEAR

| | | | | |
|---|---|---|---|---|
| Elementary Spanish Communication II | SPAN | 102 | 3 | (3,0) |
| Composition and Literature | ENGL | 102 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Applied Calculus I | MATH | 106 | 3 | (3,0) |
| History of Western Civilization | HIST | 104 | 3 | (3,0) |
| +1st Year Basic ROTC | | | | |
| Required Physical Education | RPED | | 0 | (0,1) |

SOPHOMORE YEAR

| | | | | |
|---|---|---|---|---|
| Spanish Conversation, Reading and Composition | SPAN | 202 | 3 | (3,0) |
| Major British Writers | ENGL | 202 | 3 | (3,0) |
| Biology, Chemistry, or Physics | | | 4 | (3,2) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Basic ROTC | | | | |
| Required Physical Education | RPED | 251 | 2 | (2,0) |

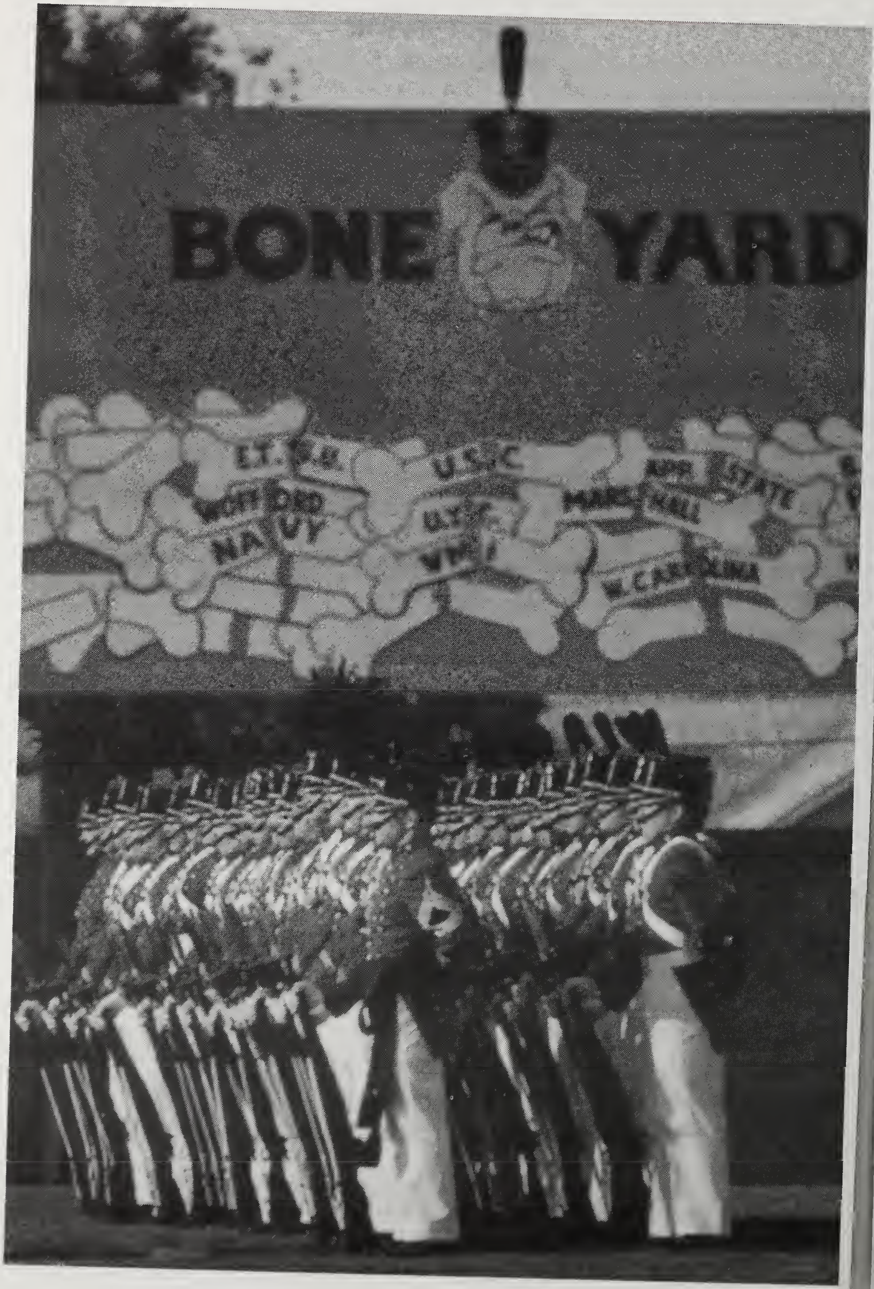
JUNIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Spanish Composition | SPAN | 302 | 3 | (3,0) |
| Advanced Modern Language | SPAN | | 3 | (3,0) |
| Advanced Modern Language | SPAN | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +1st Year Advanced ROTC | | | | |

SENIOR YEAR

| | | | | |
|---|---|---|---|---|
| Advanced Modern Language | SPAN | | 3 | (3,0) |
| Advanced Modern Language | SPAN | | 3 | (3,0) |
| **MLNG 410 or MLNG 420 | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| Elective | | | 3 | (3,0) |
| +2nd Year Advanced ROTC | | | | |

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and ROTC for all semesters that a cadet is enrolled at The Citadel.


BONE YARD
E.T.S.U.
U.S.C.
WOFFORD
NAVY
U.T.C.
VMI
MARSHALL
APP. STATE
W. CAROLINA

# Department
# of
# Aerospace Studies

Department Head: Folley
Professor: Folley
Assistant Professors: Emanuel, Bratton, Gay, Wilkerson, Russi, Melton, Setliff, Meserve

Citadel Air Force ROTC courses feature a wide variety of instruction and training opportunities. During the freshman and sophomore years, the curriculum provides students with an understanding of air power's past, present, and future roles in world affairs, as well as its relation to national defense. These courses cover the doctrine, mission, and organization of the defense establishment of the United States and examine the development of air power during this century.

During the junior and senior years, the Air Force ROTC program draws upon many academic principles. Included are communicative skills, a comprehensive analysis of defense policy and the national defense structure, the meaning of professionalism and professional responsibility, the military justice system, functions and practices of leadership and management principles, and problem solving. After the sophomore year, a transfer into Air Force ROTC will be permitted only when the transferring student wishes to pursue an Air Force commission.

## Air Force Course Descriptions

AERO 101 *The Air Force Today I* One Credit Hour
(First Semester—Fourth Class Year)

This course and its follow-on provide the student with an introductory survey of the United States Air Force. In the first semester, the course begins with a discussion of the development of the Air Force mission, functions, and organizations; corp values; and guiding principles. It continues with a discussion of the major commands and their missions, and current weapons systems in the Air Force inventory. Students are also given an introduction to leadership, followership, communicative skills, human relations, and officership.

Lecture: two hours.

AERO 102 *The Air Force Today II* One Credit Hour
(Second Semester—Fourth Class Year)

This course covers the Air Force's integration into our national strategy, as well as geopolitics and the instruments of national power. It also addresses the diverse roles of general purpose and aerospace support forces by examining their applications to the entire spectrum of conflict. U.S. Army, U.S. Navy, and Commonwealth of Independent States' forces are also discussed, along with a continued emphasis on communicative skills.

Lecture: two hours.

AERO 201 *The Development of Air Power I* One Credit Hour
(First Semester—Third Class Year)

This course explores two broad areas. First, the course examines the development of air power beginning with the first flights of the Wright brothers and ending with World War II. Second, it directs attention to the life of an Air Force officer, discussing such topics as professionalism, leadership, education, Air Force heritage, Air Force leaders, quality Air Force, ethics, values and advancement. Communication skills development continues.

Lecture: two hours.

AERO 202 *The Development of Air Power II* One Credit Hour
(Second Semester—Third Class Year)

As a follow-on to AERO 201, this course continues to examine the development of air power. It stresses a variety of events and elements in the history of air power, especially when these provide significant examples of the last 40 years, ending with an examination of the air operation in Desert Storm. Communication skills development continues.

Lecture: two hours.

AERO 301 *Air Force Leadership and Management I* Three Credit Hours
(First Semester—Second Class Year)

This is an integrated leadership and quality management course emphasizing the individual as a leader. Emphasis is given to the individual's environment and job, the management process, and an in-depth look at the function of leadership, ethics, motivation, and individual and group behavior. Special emphasis is placed on understanding the basic principles, initatives, and leadership's role in implementing and sustaining a quality Air Force. Different styles of leadership and subordinate behavior are discussed. Included is a mini-course on individual communication skills. The student develops speaking, listening, and writing skills through oral and written presentations of military and current events.

Lecture: three hours

AERO 302 *Air Force Leadership and Management II* Three Credit Hours
(Second Semester—Second Class Year)

This course deals with aspects of the military manager's work environment beyond the leadership aspect. Group dynamics, motivation, and personal values (ethics) are discussed within the context of the military organization. Cadets will use case study analysis to apply management and leadership principles to real life scenarios.

Lecture: three hours.

AERO 401 *U.S. National Security Policy I* Three Credit Hours
(First Semester—First Class Year)

This course studies the policy and process of national security. Specifically, the course reviews the varying U.S. approaches to national policy, the actors and processes involved in the determination of that policy, contemporary issues which impact national security forces and key national security issues. An in-depth look at the defense community's involvement in national security policy making is stressed.

Lecture: three hours.

AERO 402 *U.S. National Security Policy II* Three Credit Hours
(Second Semester—First Class Year)

During the second semester, the noncontract student continues the study of U.S. defense policy and focuses on future career objectives. The noncontract student will attend minimal classes while doing independent research culminating in two major writing projects. For contract cadets, the course stresses the officer's role in the military profession, the changing and demanding role of officership and the military profession, and the impact of professionalism on security policy. Also addressed are various contemporary issues which impact national security policy, national security forces, and essential elements of commissioned service. Various base visits and guest speakers give contract cadets a flavor of future military service.

Lecture: three hours.

# Department of Biology

Acting Department Head: Baldwin
Professors: Baldwin, Forsythe, Porcher, Runey, Wallace, Ross
Associate Professors: Bowman, Kelley
Assistant Professor: Darden

The Biology Department is structured to offer courses which give students a better understanding of themselves, their relationship with their environment, and the diversity of life. Enrichment courses with minimum prerequisites are offered in summer and evening programs for interested individuals.

## B.S. Biology Major

Requirements in the major include courses in physiology, field biology, descriptive biology, and developmental biology which meet the needs of a wide variety of programs in biology, medicine, secondary school science teaching, social work, wildlife, and conservation. Additional electives in biology may be selected to fulfill the interests of the individuals. Preparation for graduate school is encouraged.

## Premedical-Predental Program

Students who are planning to enter medical school, dental school, veterinary school, or professional school in allied health should consider the B.S. Biology major. The flexibility of the major course of study permits the preprofessional students to tailor their plans of study to each area of specialty. The department coordinates a voluntary program where students may gain practical experience before graduation. The large number of electives available in the biology curriculum makes it possible for the student to develop the broad science-humanities background necessary in the medical or dental profession.

## Biology Course Descriptions

BIOL 101 *General Biology I* Three Credit Hours

Prerequisite or corequisite: BIOL 111

The introductory course in biology is designed for both the major and nonmajor. Emphasis is placed on the methods of science, structural, molecular, and energetic basis of cellular activities, genetic variability and evolution, diversity and life processes in plants and animals and principles of ecology.

Lecture: three hours.

BIOL 102 *General Biology II* Three Credit Hours
Prerequisite: BIOL 101 and BIOL 111; prerequisite or corequisite: BIOL 112
Continuation of General Biology I
Lecture: three hours.

BIOL 111 *General Biology I Laboratory* One Credit Hour
Prerequisite or Corequisite: BIOL 101
The laboratory is designed to parallel the lecture content of BIOL 101.
Laboratory: two hours.

BIOL 112 *General Biology II Laboratory* One Credit Hour
Prerequisite: BIOL 101 and BIOL 111
Corequisite or Prerequisite: BIOL 102
The laboratory is designed to parallel the lecture content of BIOL 102.
Laboratory: Two hours.

BIOL 120 *Introduction to Biology I* Four Credit Hours

Required of all biology majors and education majors whose teaching field is biology; recommended for premeds in other majors or others with the permission of the department head.

This introductory course is designed for biology majors. Topics include the scientific method and data analysis, cell and molecular biology, genetics, evolution, diversity of life, plant and animal biology, and ecology.

Lecture: three hours; laboratory: three hours.

BIOL 121 *Introduction to Biology II* Four Credit Hours

Prerequisite: BIOL 120, or a grade of "B" or better in BIOL 101 and BIOL 111

Required of all biology majors; recommended for premeds in other majors
A continuation of BIOL 120.
Lecture: three hours; laboratory: three hours.

BIOL 203 *Survey of the Plant Kingdom* Four Credit Hours
Prerequisite: BIOL 102/112
Elective to all majors.

A general survey of the vascular and nonvascular plants. Lecture and laboratory experiences will include a study of the characteristics, life cycles, evolutionary trends, ecological importance, and economic value of each plant group. Both the biology student and the nonmajor will receive a deeper appreciation of plants in their natural and man-made habitats.

Lecture: three hours; laboratory: two hours.

BIOL 205 *Cell Biology* Three Credit Hours

Prerequisite: BIOL 102/112

Required of all biology majors.

An introduction to the morphological, biochemical and biophysical properties of protoplasm and their significance in the life processes.

Lecture: three hours.

BIOL 208 *Evolution* Three Credit Hours

Prerequisite: BIOL 102/112

A basic course in the concepts of evolution and population dynamics. The history of evolutionary thought, the processes of organic evolution, and systematics are conducted.

Lecture: three hours.

BIOL 209 *Man and His Environment* Three Credit Hours

Not available for biology majors.

A study of the interdependence of man and his environment. Emphasis will be on man's place in nature, pollution, man-modified habitats, and environmental protection.

Lecture: three hours.

BIOL 301 *Invertebrate Zoology* Four Credit Hours

Prerequisite: BIOL 102/112

A general study of the invertebrate animals, including taxonomy, morphology, and ecology.

Lecture: two hours; laboratory: four hours.

BIOL 302 *Comparative Vertebrate Anatomy* Four Credit Hours

Prerequisite: BIOL 102/112

Comparative anatomy of certain vertebrate forms.

Lecture: two hours; laboratory: four hours.

BIOL 303 *Human Anatomy* Three Credit Hours

Prerequisite: BIOL 101/111

Not available to biology majors.

Foundation material in mammalian anatomy which has been designed to give an understanding of basic human anatomy. Laboratory, BIOL 305, is optional.

Lecture: three hours.

BIOL 304 *Human Physiology* Three Credit Hours

Prerequisite: BIOL 101/111

Not available to biology majors.

An introduction to the basic physics and chemistry of life, including a study of the machinery of the regulatory mechanisms of the human body. Laboratory, BIOL 306, is optional.

Lecture: three hours.

BIOL 305 *Human Anatomy Laboratory* One Credit Hours

Prerequisite: BIOL 101/111

Corequisite or prerequisite: BIOL 303

Not available to biology majors.

Laboratory exercises to illustrate the relationship of structure of mammalian anatomy.

Laboratory: two hours.

BIOL 306 *Human Physiology Laboratory* One Credit Hour

Prerequisite: BIOL 101/111

Corequisite or prerequisite: BIOL 304

Not available to biology majors.

The experiments demonstrate various physiological processes of life.

Laboratory: two hours.

BIOL 307 *Animal Behavior (Ethology)* Three Credit Hours

Prerequisite: BIOL 102/112 or PSYC 201

This course deals with the description, development, and adaptive nature of behavior in free-living animals. The laboratory will emphasize the description and qualifications of behavior patterns.

Lecture: two hours; laboratory: two hours.

BIOL 308 *Genetics* Four Credit Hours

Prerequisite: BIOL 102/112 or permission of the instructor.

Required of all biology majors.

A study of inheritance, including Mendelian genetics, molecular genetics, changes in chromosome structure and number, cytogenetics, and population genetics.

Lecture: three hours; laboratory: three hours.

BIOL 310 *Microbiology* Four Credit Hours

Prerequisite: BIOL 102/112 or approval of department head.

A general study of microorganisms and their importance to humans with special emphasis on their fundamental life processes. Includes a brief introduction to epidemiology and immunology.

Lecture: three hours; laboratory: three hours.

BIOL 314 *The Vascular Flora of South Carolina* Four Credit Hours

Prerequisite: BIOL 102/112 or approval of instructor.

An introductory study of the native vascular flora of South Carolina, emphasizing the identification and collection of native plants. The student will have practice in use of taxonomic keys and in preparation of specimens for The Citadel Herbarium.

Lecture: two hours; laboratory: four hours.

BIOL 321 *General Entomology* Four Credit Hours

Prerequisite: BIOL 102/112

An introduction to the study of insects and closely related arthropods, including their ecology, physiology, morphology, taxonomy, adaptations, and immature stages. Laboratory studies will emphasize field collection methods and curatorial techniques.

Lecture: three hours; laboratory: three hours.

BIOL 322 *History of Biology* Three Credit Hours

Prerequisite: BIOL 102/112 or permission of the instructor.

Major aspects of the development of biological sciences and their relationship to other scientific disciplines. Special attention will be paid to the development and content of theories and to changes in the methods of biological research.

Lecture: three hours.

BIOL 401 *Embryology* Four Credit Hours

Prerequisite: BIOL 102/112

A description of the developmental process including an analysis of underlying molecular mechanisms. In laboratory, a study of the anatomy of selected vertebrate embryos with additional experimental work on live sea urchins, snails and frogs.

Lecture: two hours; laboratory: four hours.

BIOL 402 *Descriptive Histology* Four Credit Hours

Prerequisite: BIOL 102/112

A detailed study of the chief types of animal tissues and a description of the histology and organs. Laboratory work includes microscopic study of cells, tissues, and organs of animals.

Lecture: three hours; laboratory: three hours.

BIOL 403 *Animal Physiology* Four Credit Hours

Prerequisites: BIOL 102/112 and CHEM 208 (Organic Chemistry)

A systematic study of the general physiology of animal organ systems.

Lecture: three hours; laboratory: three hours.

This course formerly was entitled Mammalian Physiology.

BIOL 405 *General Parasitology* Four Credit Hours

Prerequisite: BIOL 102/112

Taxonomy, morphology, adaptation, and ecology of parasites affecting human and domestic animals. Life history, vectors, and controls are emphasized.

Lecture: three hours; laboratory: two hours.

BIOL 406 *Ecology* Four Credit Hours

Prerequisite: BIOL 102/112

Required of all biology majors.

An introduction to the study of biological interrelationships and the effects of the environment on the structure and function of animal populations. Laboratory will emphasize methods and materials of ecological investigations.

Lecture: two hours; laboratory: four hours.

BIOL 408 *Ornithology* Four Credit Hours

Prerequisite: BIOL 102/112

A study of the structure, function, and ecology of birds. Field trips and bird specimens will give students a working knowledge of birds common to South Carolina.

Lecture: two hours; laboratory: four hours.

BIOL 409 *Marine Biology* Four Credit Hours

Prerequisite: BIOL 102/112

Elective to all juniors and seniors.

The lectures cover major ecological factors and the fundamentals of oceanography. Laboratory work stresses the familiarities with species, taxonomic methods, sampling procedures, experimental design, use of equipment, and data handling.

Lecture: two hours; laboratory: four hours.

BIOL 410 *Vertebrate Natural History* Four Credit Hours

Prerequisite: BIOL 102/112

An introduction to the classification, ecology, evolution and distribution of the vertebrates. Laboratory with emphasis on identification and field study techniques, especially with respect to the vertebrates of South Carolina.

Lecture: three hours; laboratory: two hours.

BIOL 411 *Senior Seminar* One Credit Hour

Required of all biology majors. Open only to seniors.

A group study of current topics of biological interest.

Lecture: one hour.

BIOL 412 *Special Topics in Biology* Three Credit Hours

Prerequisite: permission of the instructor.

A course designed for the study of specialized topics in modern biology.

Lecture: three hours.

BIOL 419 *Economic Botany* Three Credit Hours

Prerequisite: BIOL 102/112 or approval of instructor.

An introductory course in economic botany devoted to the consideration of plants which are useful or harmful to humans; their origins and history, botanical relationships, chemical constituents which make them economically important, and their roles in prehistoric and modern cultures and civilizations.

Lecture: three hours.

BIOL 420 *Senior Research Project* Three Credit Hours

Prerequisite: permission of department head and supervising instructor.

Independent study in undergraduate research for serious students planning graduate study.

Lecture: three hours.

BIOL 424 *Molecular Genetics* Four Credit Hours

Prerequisite: BIOL 308, CHEM 208; CHEM 409 Strongly Suggested; BIOL 310 suggested.

Coordinated lecture/laboratory class covering classical molecular and cellular biochemistry as well as modern molecular genetics. Study of the manner in which genetic information is carried in DNA and how DNA directs the synthesis of proteins in bacterial and eucaryotic cells and their associated viruses. Specific topics to be covered include mechanisms governing gene expression, metabolic control system, gene therapy, oncogenesis, molecular genetics of genetic diversity, molecular basis of human diseases, and a review of known disease-causing genes such as the cystic fibrosis gene, Huntington's chorea gene, and the Duchenne Muscular Dystrophy gene.

Lecture: three hours; laboratory: three hours.

BIOL 426 *Freshwater Biology* Four Credit Hours

Prerequisite: BIOL 102/112

The study of freshwater organisms and their environment. Instruction will cover the biological diversity, ecological and physiological adaptations, and the physical setting of freshwater systems. Local systems of interest include large coastal rivers and lakes, upper portions of estuaries and old rice fields.

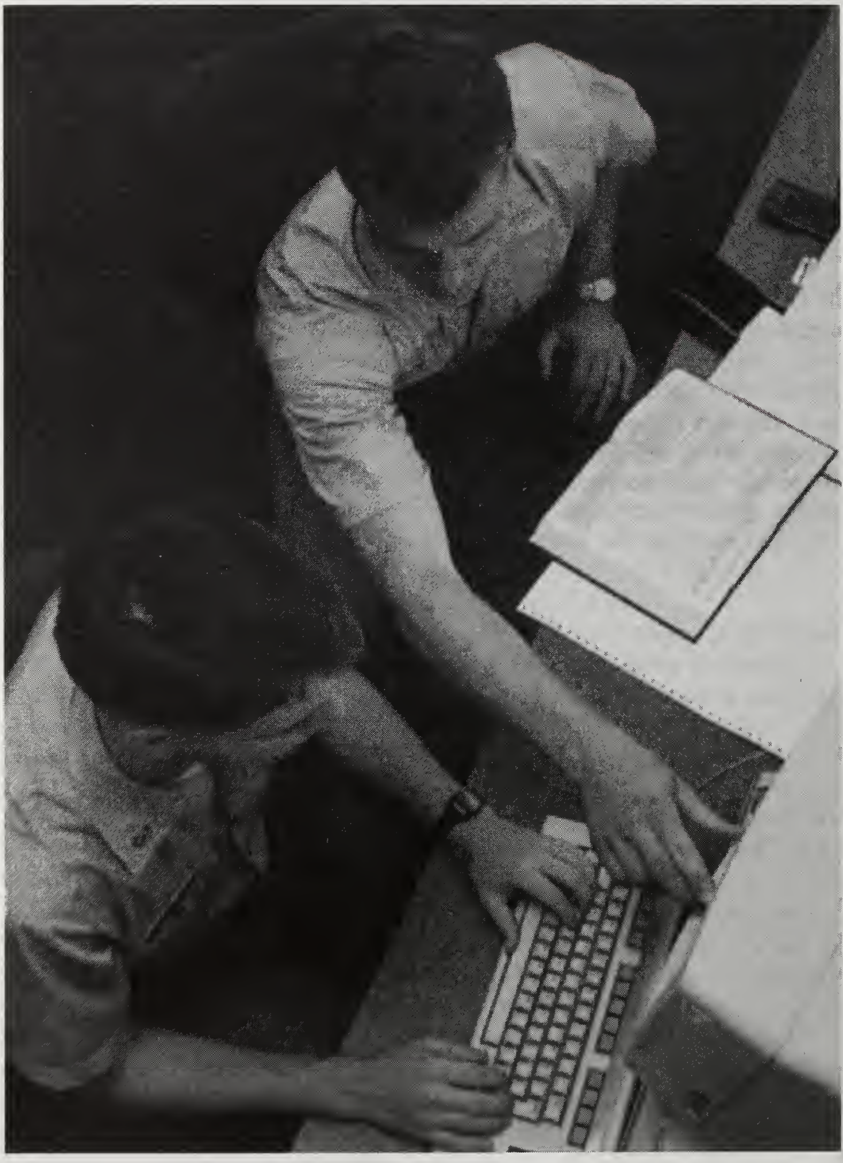
Lecture: two hours; laboratory: four hours.

BIOL 427 *Immunology* Three Credit Hours

Prerequisite or corequisite: BIOL 205 Cell Biology and BIOL 308 Genetics

A description of the immune system including the cells and organs involved in immunity; antigen-antibody reactions; immunoglobulin structure, function; organization and expression of immunoglobulin genes; the major histocompatibility complex; immune regulation and tolerance. These basic concepts will be applied to understanding the role of the immune system in vaccinations; infectious disease; organ transplantation; autoimmune disease; immunodeficiency diseases; AIDS and cancer.

Lecture: three hours.



# Department of Business Administration

Department Head: Bebensee
Professors: Wittschen, Spivey, Pokryfka, Zigli, Moore, Alford, Simmons
Associate Professors: Craig, Bebensee, Strauch, Kindel, Silver, Sparks, Greenawalt, Woolsey, Sharbrough, Foster
Assistant Professor: Moody

The mission of the Department of Business Administration at The Citadel is two-fold: to offer an undergraduate business program in a disciplined military environment along with a traditional evening Master of Business Administration program for working professionals and to give all our students the knowledge and skills they need to assume positions of leadership in business and society. The Citadel's undergraduate experience is distinctive in that it offers development of character and leadership through participation in the Corps of Cadets, small classes, faculty whose first priority is teaching, and professors who interact with students outside of the classroom and have the opportunity to live on campus, all of which comprise a unique learning community.

The Citadel's undergraduate program, our principal focus, blends four semesters of science, four semesters of English, four semesters of foreign language courses, other traditional liberal arts courses, and upper-level business courses with a demanding on-campus military leadership laboratory — the South Carolina Corps of Cadets. This laboratory teaches self-awareness, stress management, creative problem-solving, communication, motivation, conflict management, and productive use of power and authority. In addition to living and working in this laboratory, cadets also take eight semesters of ROTC courses which emphasize communication skills, military professionalism, ethics, analysis of the defense structure, practice of leadership and management principles, and problem-solving skills.

In their junior and senior years, Citadel business majors use assignments from several different courses to build a portfolio of papers, case analyses, and class projects which demonstrate their competencies in oral and written communications, problem-solving, computer usage, and leadership skills. This portfolio may be used to show prospective employers examples of the kind of work they are capable of doing.

Faculty intellectual development activities, intellectual contributions, and service activities are viewed as important supporting elements of our teaching mission. Faculty members add to their expertise by participating in individual and group faculty development activities, conducting research projects, and interacting with practitioners in their fields.

For students interested in accounting careers, the Department offers an accounting concentration. Students who choose to pursue this option use all six of their departmental elective slots to satisfy concentration requirements as specified in the "Courses of Study" section of this catalog.

Persons interested in the Master of Business Administration program, which is offered only through evening classes, should consult the Graduate Programs catalog for further information.

## Business Course Descriptions

BADM 201 *Principles of Macroeconomics* Three Credit Hours

Required of all business administration sophomores.

A study of the origins of capitalism and the development of economic institutions; an introduction to economic principles, including an analysis of the determination of national income and its fluctuations, and an introduction to money, banking, and government finance. (May be taken after BADM 202.)

BADM 202 *Principles of Microeconomics* Three Credit Hours

Required of all business administration sophomores.

A study of value and price, including factors affecting short- and long-run adjustments of the individual firm with respect to prices, costs, and levels of production; value and price determination; market adjustments in competition and monopoly; distribution of income; international economics; and current economic problems. (May be taken before BADM 201.)

BADM 205 *Business Statistics I* Three Credit Hours

Prerequisite: MATH 105

Required of all business administration sophomores.

This course introduces the student to the concepts and techniques necessary to organize and analyze data. Topics covered in this course include data collection and presentation, probability distributions, sampling theory, hypothesis testing, analysis of variance, and simple regression analysis. Students will be introduced to computer-based tools used in the analysis of statistical data.

BADM 211 *Introduction to Financial Accounting and Reporting* Three Credit Hours

Required of all business administration sophomores.

An introduction to the basic theory and practice of financial accounting and reporting. Focus on the fundamental concepts, terminology, and techniques for the preparation and interpretation of the corporate financial statements: the balance sheet, the income statement, and the statement of retained earnings.

BADM 212 *Accounting for Decision-Making* Three Credit Hours

Prerequisite: BADM 211

Required of all business administration sophomores.

Focus on the interpretation and use of accounting information for external and internal decision-making. Topics include preparation and interpretation of corporate financial statements, financial statement analysis, and the development and use of reports for internal purposes such as cost behavior analysis and budgeting. Integrative project involves study and interpretation of a corporate annual report and other relevant information.

BADM 300 *Intermediate Financial Accounting I* Three Credit Hours

Prerequisite: BADM 212

Required of business administration majors with a concentration in accounting.

A rigorous study of the theory and practice of financial accounting. Focus on the concepts underlying financial accounting and the preparation of corporate financial statements. Emphasis on asset accounting and preparation of the balance sheet and the income statement.

BADM 301 *Intermediate Financial Accounting II* Three Credit Hours

Prerequisite: BADM 300

Required of business administration majors with a concentration in accounting.

A continuation of BADM 300. Primary emphasis on liability and equity accounting and the preparation of financial statements, including the statement of cash flows.

BADM 302 *Managerial Accounting* Three Credit Hours

Prerequisite: BADM 212

Required of business administration majors with a concentration in accounting.

A rigorous study of the preparation and interpretation of accounting information for planning, control, and decision-making within an organization.

BADM 305 *Legal & Ethical Environment of Business* Three Credit Hours

Required of all business administration juniors.

An introduction to the legal system, with special emphasis on its relation to business. Students will contend with federal and state regulations as well as the common law to arrive at an understanding of the legality, ethics, and social responsibility of business decisions. Topics include an introduction to the judicial system, torts and product liability, administrative law and consumer protection, agency and partnership, contracts, the Constitution, criminal law, ethics, and fiduciary trust.

BADM 309 *Marketing Principles* Three Credit Hours
Prerequisite: BADM 202
Required of all business administration juniors.

A study of macro- and micro-marketing issues including interrelationship of marketing activities and functioning of the national economy, and influence of consumer, competitive, and governmental pressure on the firm's marketing behavior. International and domestic marketing issues are examined.

BADM 312 *Income Taxation* Three Credit Hours
Prerequisite: BADM 212
Required of business administration majors with a concentration in accounting.

Study of the basic principles of federal income tax law. Focus on individual income taxation; overview of taxation of corporations, partnerships, and S-corporations.

BADM 315 *Business Statistics II* Three Credit Hours
Prerequisite: BADM 205

A continuation of BADM 205, including an introduction to t, Poisson, and Chi-square distributions; tests of significance; regression and correlation analysis; index numbers; and simple and multiple correlation, as well as a more sophisticated exploration of sampling and probability theory. Students will be introduced to computer-based tools for statistical analysis of data.

BADM 316 *Communications in Business* Three Credit Hours
Prerequisite: Junior Standing
Required of business administration juniors.

A study of written and oral interpersonal communication in goal-seeking organizations. Emphasis is given to communication theory, including barriers and types of communication flows in organizations, the psychology of communicating good neutral, negative, and persuasive messages, and the writing of formal reports.

BADM 317 *Computer Applications in Business* Three Credit Hours
Prerequisite: CSCI 110
Required of business administration juniors.

The application of computer software to assist in analyzing common business decisions, with an emphasis on advanced techniques in spreadsheet and database development and design. Includes a major business project utilizing presentation software and the Internet.

BADM 318 *Commercial Law* Three Credit Hours
Prerequisite: BADM 305

A detailed examination of commercial law topics including sales, commercial paper, secured transactions, bulk transfers, and bankruptcy.

BADM 320 *International Business* Three Credit Hours

This course focuses on decisions in international business operations for small and large firms. Of particular interest are international business climate/culture, foreign exchange rates, international trade, overseas direct investment, and operations management. Students will incorporate case studies dealing with aspects of international business.

BADM 321 *Business Finance* Three Credit Hours

Prerequisite: BADM 212

Required of all business administration juniors.

An introductory course combining both a description of the structure of business financing and a study of financial principles and practices, with special emphasis on their relation to managerial planning and control.

BADM 322 *Business Finance Cases and Applications* Three Credit Hours

Prerequisite: BADM 321

This course considers problems arising in the financial management of operations of nonfinancial firms. Emphasis is on the role of the finance executive in a business. Case analysis is employed to integrate theory with decision making.

BADM 325 *Principles of Management* Three Credit Hours

Required of all business administration juniors.

A survey of the fundamental concepts of organization and management with emphasis on the role of a manager as a decision-maker in a rapidly changing national and international environment with short- and long-range social, legal, and ethical ramifications. Special emphasis is placed on the leadership functions of planning, organizing, coordinating, motivating, and controlling through effective feedback.

BADM 326 *Principles of Real Estate* Three Credit Hours

This course provides a personal and professional perspective of the legal, financial, and ethical rights and obligations of all parties in a real estate transaction. Topics include organizing, functioning, financing, marketing, brokering, appraising, and managing of real estate transactions.

BADM 328 *Organization Theory and Behavior* Three Credit Hours

Prerequisite: BADM 325

Required of business administration juniors.

A study of the organization, focusing on interactions between organizational designs and people within an ethical framework. The dynamics and links between individuals, groups, and the national and international environment are analyzed to highlight the determinants of organizational effectiveness. A major focus is on the development of positive interpersonal relations.

BADM 402 *Advanced Financial Accounting* Three Credit Hours
Prerequisite: BADM 300; prerequisite or corequisite: BADM 301
Required of business administration majors with a concentration in accounting.

Selected topics pertaining to financial accounting and reporting; special types of entities such as consolidated corporations, governments, and not-for-profit organizations; specialized topics; and current issues.

BADM 404 *Investments* Three Credit Hours
Prerequisite: BADM 321

A survey course that introduces different types of securities, markets, transaction costs, security regulations, and taxes. The basic techniques for analyzing the potential returns and risks of individual securities and for combining them efficiently into portfolios are also studied.

BADM 405 *Marketing Management* Three Credit Hours
Prerequisite: BADM 309

A study of marketing planning and decision-making from the point of view of the marketing manager in a changing economic, social, and legal environment. Basic concepts and methods of analysis used in formulating product, distribution, promotion, and pricing strategy are studied.

BADM 407 *Money and Banking* Three Credit Hours
Prerequisite: BADM 201

The nature and functions of money, the various monetary standards, the development of our monetary system, the factors affecting the value of money, methods and objectives of money and credit control, international exchange, and analysis of recent developments in money and credit.

BADM 409 *Human Resource Management* Three Credit Hours

A contemporary course in the management of personnel as a resource concentrating on the historical, legal, social, economic, and ethical framework of labor relations with a focus on forecasting, planning, staffing, compensating, developing a career, labor relations, performance management, and control and evaluation of human resources.

BADM 410 *Production & Operations Management* Three Credit Hours
Prerequisites: BADM 202, BADM 205, BADM 212, and BADM 325
Required of all business administration seniors.

Analysis of the production function as the planning, organizing, directing, and controlling of the required activities and resources necessary to produce products and services. Managerial problems in the areas of plant design and location, production standards, operations planning and control, product development, materials handling, and inventory control are discussed.

BADM 412 *International Economics* Three Credit Hours
Prerequisite: BADM 202
An analysis of the theoretical principles underlying international specialization and exchange, the making of international payments, the relation of international payments to national income, and the application of these principles to recent historical developments and to current national policies. An introduction is provided to the network, composition, and sources of world trade.

BADM 413 *International Marketing* Three Credit Hours
Prerequisite: BADM 309
Introduction to global problems, issues, and decision areas facing the marketing manager for small and large firms. Case studies are utilized, and a research project is required.

BADM 414 *Consumer Behavior* Three Credit Hours
Prerequisite: BADM 309
The study of behavioral science theories and related marketing models useful to managers in understanding consumers in the domestic and international marketplace. A research project is required.

BADM 416 *Auditing* Three Credit Hours
Prerequisite: BADM 300; prerequisite or corequisite: BADM 427
Required of business administration majors with a concentration in accounting.
Basic concepts of auditing including risk analysis, evaluation of controls, evidence gathering, and reporting as applicable in financial statement, compliance, and operational audits. Consideration of applicable professional standards throughout.

BADM 417 *Systems Analysis & Design for Business* Three Credit Hours
Prerequisite: CSCI 110 and BADM 317 or permission of instructor
This course addresses the theory and practice of effective database systems design for businesses. Topics include client/server models and object-oriented databases, as well as the data warehouse's role in supporting business decision-making.

BADM 420 *Management of Change* Three Credit Hours
Prerequisite: Senior standing in business administration
This course uses knowledge and skills from the social sciences to develop strategies for achieving effective change within organizations. Implementation of these strategies to achieve more effective organizations is the core of this course. Topics include team building, process consultation, confrontation and the management of conflict, and technostructural change.

BADM 422 *Strategic Management* Three Credit Hours

Prerequisites: BADM 201, BADM 202, BADM 211, BADM 212, BADM 309, BADM 321, BADM 325

Required of all business administration seniors.

A capstone course designed to give the student practice in integrating the numerous theory courses in all phases of business management. The student develops problem-solving and decision-making skills by assuming the role of top management in the study of actual business cases.

BADM 425 *Small Business Management/ Entrepreneurship* Three Credit Hours

Prerequisite: Senior standing in business administration

This course covers the environment of small business, factors of success or failure, small business management tools, and sources of financing. Student teams will prepare business plans for the start-up of a business. In some instances, the teams will work with local entrepreneurs in developing business plans. The course is supported by a multi-media business planning system.

BADM 427 *Accounting Information Systems* Three Credit Hours

Prerequisite: CSCI 110; prerequisites or corequisites: BADM 300 and BADM 302.

Required of business administration majors with a concentration in accounting.

After reviewing the limitations of a manual accounting system, students will use relational database software to model business processes and develop an event-driven information technology application. Topics include information process rules, relationships, risks, and controls.

BADM 430-435 *Seminar in Business Administration* Three Credit Hours

Prerequisite: approval of course instructor and department head.

These courses are designed to provide students of exceptional ability and background with the opportunity to explore a variety of advanced, business-oriented, analytical techniques. Specified topics covered within these courses will be offered at the discretion of the instructor and under the supervision of the department head.

BADM 450 *Internship* Three Credit Hours

Prerequisite: Senior Standing

Open to senior business administration majors.

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues faced by today's firms and their managers, the kinds of information firms collect and use, and the development of solutions for business problems. Interns will spend ten to twelve hours each week working alongside a senior-level manager in a Charleston-area business.

BADM 490 *Independent Study* Three Credit Hours

Prerequisite: Senior standing with at least a 3.0 academic average. Approvals for enrollment during preregistration from sponsoring professor and department head are required.

This course may be taken by seniors desiring to engage in a scholarly research project of mutual interest to the student and the faculty member who directs the study. The project should culminate in a formal student research paper.

# Department of Chemistry

Department Head: Blanton
Professor: May, Blanton
Associate Professors: Rushing, Braun, Richardson, McAfee, Zuraw
Assistant Professor: Mabrouk

The course of study for students majoring in chemistry is designed to prepare them to enroll as graduate students in full standing at leading universities; to provide the foundation for pursuing careers in medicine, dentistry, and other professions; and to fill positions as chemists in industrial laboratories. These curricula embody training in the four fundamental subdivisions of the science: inorganic, organic, analytical, and physical chemistry.

The department occupies Byrd Hall, which was completed in 1968. Within its 52,000 square feet, this facility houses a lecture theater; laboratories; a centrally located library; and conveniently located stockroom, preparation rooms, and balance rooms.

The B.S. in Chemistry curriculum is approved by the American Chemical Society, and a chapter of Student Affiliates of the ACS is active at The Citadel.

The B.S. in Chemistry curriculum is intended for those students who plan to go to graduate school in chemistry or chemical engineering or to fill positions in industrial laboratories. Students receiving this prestigious degree are awarded a certificate by the American Chemical Society documenting their status as professional chemists and are frequently given preferential treatment as candidates for professional positions.

The B.A. curriculum provides great flexibility in choosing electives, and this permits a program to be designed to fit the student's individual aspirations. It is intended for those planning to enter medical, dental, or other professional schools; military service; or positions in industry.

### Minor in Chemistry

*Objectives:* The minor in chemistry will provide students with a stronger background in chemistry than they would obtain from the requirements in the core curriculum. It is designed to acquaint students with the more advanced theories and techniques that are illustrated in the major subfields of chemistry.

*Knowledge and/or Skills to be Achieved:* In general, the student completing the minor will have a more in-depth foundation in chemical bonding, physical properties and synthesis of compounds, chemical thermodynamics and kinetics, chemical and instrumental analyses, properties of biomolecules, and the design of polymers. More specifically, by the choice of advanced courses, the student may gain greater insight with regards to one or more of these general areas to meet specific career goals. Additionally, because the department places considerable emphasis on oral and written presentations, the student will gain considerable experience in interpreting and presenting chemical data in a professional manner.

This minor is not approved for students majoring in Chemistry.

*Structure of the minor:*

1. Required Courses: (8 Credit Hours)

| | |
|---|---|
| CHEM 151 | General Chemistry I* |
| CHEM 161 | General Chemistry Laboratory I* |
| CHEM 152 | General Chemistry II* |
| CHEM 162 | General Chemistry Laboratory II* |
| CHEM 207 | Organic Chemistry I |
| CHEM 217 | Organic Chemistry Laboratory I |
| CHEM 208 | Organic Chemistry II |
| CHEM 218 | Organic Chemistry Laboratory II |

*These four courses meet the requirements for the core curriculum, and their hours are **not** counted toward the total for the Minor in Chemistry. Also note that CHEM 103/113 and CHEM 104/114 do **not** meet the requirements for the Minor in Chemistry.

2. Electives: (10 Credit Hours)**
   A. One of the three sequential upper-level offerings (300 or above)

| | |
|---|---|
| CHEM 305/306 | Physical Chemistry I & II |
| CHEM 300/302 | Quantitative Analysis/Instrumental Analysis |
| CHEM 401/402 | Inorganic Chemistry I & II |

   B. Any combination of additional upper-level chemistry courses which bring the total number of hours to at least 18 including at least one upper-level laboratory course. Again, this total is exclusive of the eight hours of General Chemistry required for the core curriculum.

**Biology majors will be required to take 12 credit hours of upper level offerings. The additional courses must be approved in advance by the Head of the Department of Chemistry.

Total Credit Hours required—18

## Premedical Program

Students who plan to enter medical school or allied professional schools such as dental or veterinary school should consider the B.A. program in chemistry, and choose electives to broaden their preparation in other sciences and the humanities. Students who plan to enter medical school upon completion of their baccalaureate degrees should acquaint themselves with requirements of the medical schools of their choice and plan their programs accordingly. An extremely worthwhile reference to the entrance requirements for all medical schools in the United States and Canada is *Medical School Admission Requirements* published each year by the Association of American Medical Colleges, One DuPont Circle N.W., Washington, D.C. 20036.

## Geology and Geography

Geology and geography courses are offered by the Department of Chemistry. The professor of geology and geography is a member of the department. Geology offerings include an introductory geology course required for civil engineering majors and earth science and environmental geology courses required for education majors whose teaching field is science. Geography offerings include an introductory course required for education majors (history and social studies).

## Requirements for Non-Science Students

Students majoring in an area other than a science or engineering may take chemistry to fulfill a portion of their science requirement; in this case, they must complete a four-course set, either CHEM 151/161 and CHEM 152/162 or CHEM 103/113 and CHEM 104/114. However, unless the students' degree plans stipulate they take CHEM 151/161 and CHEM 152/162, it is highly recommended they take CHEM 103/113 and CHEM 104/114. A student may not use both CHEM 103 and CHEM 151 or CHEM 104 and CHEM 152 to meet degree requirements.

## Chemistry Course Descriptions

CHEM 103 *Introduction to Chemistry I* Three Credit Hours

Corequisite or prerequisite: CHEM 113

For non-science majors only.

The first semester of a course designed for students who do not expect to take any other course in chemistry. The course will cover the fundamentals of chemistry including electronic structure of the atoms, bonding, basic chemical calculations, gases, and various types of reactions. Mathematical emphasis will be less rigorous than in CHEM 151. Chemical processes of products used in everyday life will be stressed.

Lecture: three hours.

CHEM 104 *Introduction to Chemistry II* Three Credit Hours

Prerequisites: CHEM 103 and CHEM 113 or CHEM 151 and CHEM 161

Corequisite or prerequisite: CHEM 114

For non-science majors only.

The concluding semester of a course designed for students who do not expect to take any other course in chemistry. Among the topics to be covered will be the relationship of chemistry to ecology, to the human body, to energy productions, and to product manufacturing. Emphasis will be placed on making students more informed consumers as they choose and use everyday products.

Lecture: three hours.

CHEM 113 *Introduction to Chemistry Laboratory I* One Credit Hour

Prerequisite or corequisite: CHEM 103

Required of all students selecting CHEM 103.

Student-conducted laboratory procedures and experiments designed to parallel as closely as possible and to enhance the material covered in CHEM 103. Emphasis will be placed on basic laboratory techniques. Demonstrations will be used to illustrate important chemical concepts.

Laboratory: two hours.

CHEM 114 *Introduction to Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 103 and CHEM 113

Corequisite or Prerequisite: CHEM 104

Required of all students selecting CHEM 104.

A continuation of CHEM 113. Experiments and demonstrations will parallel, as closely as possible, and enhance the material covered in CHEM 104. Preparation and analysis of some interesting common products will be conducted.

Laboratory: two hours.

CHEM 151 *General Chemistry I* Three Credit Hours

Corequisite or prerequisite: CHEM 161; Chemistry majors must have a grade of C or higher.

Required of all freshmen majoring in the sciences and engineering; option for B.S. in Mathematics or Computer Science; elective to others.

Problem-solving techniques and essential concepts, including structure and properties, reactions, stoichiometry, states of matter, thermochemistry, and bonding. Calculators with logarithmic capability are required.

Lecture: three hours.

CHEM 152 *General Chemistry II* Three Credit Hours

Prerequisites: CHEM 151 and CHEM 161; Chemistry majors must have a grade of C or higher.

Corequisite or prerequisite: CHEM 162

Required of all students majoring in the sciences and engineering; option for B.S. in Mathematics or Computer Science; elective to others.

Continuation of CHEM 151. Emphasis includes solutions, kinetics, equilibrium, acids and bases, solubility, redox, and an introduction to organic chemistry.

Lecture: three hours.

CHEM 161 *General Chemistry Laboratory I* One Credit Hour

Prerequisite or corequisite: CHEM 151

Required of all students selecting CHEM 151.

Introduction to laboratory techniques and experiments designed to accompany the topics covered in CHEM 151.

Laboratory: two hours. (Note: Chemistry majors register for a special section of this course which meets three hours a week.)

CHEM 162 *General Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 151 and CHEM 161

Corequisite or prerequisite: CHEM 152

Required of all students selecting CHEM 152.

A continuation of CHEM 161; experiments include an introduction to qualitative analysis, quantitative techniques, and selected instrumental methods.

Laboratory: two hours. (Note: Chemistry majors register for a special section of this course which meets three hours a week.)

CHEM 207 *Organic Chemistry I* Three Credit Hours

Prerequisites: CHEM 152 and CHEM 162; Chemistry majors must have a grade of C or higher.

Required of all sophomores majoring in chemistry.

A study of the aliphatic hydrocarbons, their preparations and reactions, with emphasis on reaction mechanisms and transformations.

Lecture: three hours.

CHEM 208 *Organic Chemistry II* Three Credit Hours

Prerequisites: CHEM 207 and CHEM 217

Corequisite or prerequisite: CHEM 218

A study of aromatic compounds and the various functional classes of compounds. Emphasis will be placed on reactions, reaction mechanisms, and transformations. Important biomolecules will be covered briefly.

Lecture: three hours.

CHEM 217 *Organic Chemistry Laboratory I* One Credit Hour

Corequisite or prerequisite: CHEM 207

A course which emphasizes the development of skill in the use of basic laboratory techniques through the completion of a series of experiments involving various types of reactions such as substitution, elimination, and addition reactions with an introduction to modern instrumentation such as the IR spectrophotometer, gas chromatograph, and NMR spectrometer.

Laboratory: three hours.

CHEM 218 *Organic Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 207 and CHEM 217

Corequisite or prerequisite: CHEM 208

A continuation of CHEM 217 with the emphasis on the synthesis, reactions, and identification of the various classes of organic compounds.

Laboratory: three hours.

CHEM 300 *Quantitative Analysis* Four Credit Hours

Prerequisites: CHEM 102 and CHEM 112 and MATH 107 or the equivalent or permission of the department head.

Required of all juniors majoring in chemistry; elective to others.

This course has as a primary focus the chemical principles involved with classical gravimetric and volumetric analysis; however, modern methods of analysis including colorimetry and potentiometry are introduced.

Lecture and discussion: three hours; laboratory: three hours.

CHEM 302 *Instrumental Methods* Four Credit Hours

Prerequisites: CHEM 300 and CHEM 305 or permission of the department head

Corequisite: CHEM 306

Required of all juniors majoring in chemistry; elective to others.

Modern instrumental methods of analysis are discussed, with emphasis on the physical or chemical principles involved in the method, design or analytical instruments, and treatment of analytical data. Laboratory work provides practice in the three major areas of instrument analysis—chromatography, electrochemistry, and spectroscopy.

Lecture: two hours; laboratory: four hours.

CHEM 305 and CHEM 306 *Physical Chemistry I and II* Three Credit Hours Each Semester

Prerequisites: MATH 132 or MATH 107; and PHYS 211/261 or PHYS 206/256.

Corequisite for CHEM 305: CHEM 300

Prerequisite for CHEM 306: CHEM 305

Required of all juniors majoring in chemistry; elective to others.

CHEM 305 provides a detailed study of the laws of thermodynamics, Gibbs Energy calculations, and chemical equilibrium. CHEM 306 covers phase equilibria in both ideal and non-ideal solutions, surface thermodynamics, kinetic theory of gases, kinetics and mechanisms or reactions, viscosity, and electrical conductance of electrolyte solutions.

Lecture: three hours.

CHEM 308 *Chemical Information* One Credit Hour

Required of all chemistry majors; elective to others.

This course is an introduction to the literature of chemistry. In addition to the traditional printed primary, secondary, and tertiary sources, the student is introduced to on-line, computer-assisted searching of the literature.

Lecture and discussion: one hour.

CHEM 309 *Current Topics in Chemistry* Three Credit Hours

Prerequisites: CHEM 104 (with permission of the department head) or CHEM 152; General elective only.

Interesting current topics will be presented at a level appropriate for students with a general chemistry background. The topics will be determined by student interest and faculty availability.

Lecture: three hours.

CHEM 310 *Survey of Nuclear Science* Three Credit Hours

Prerequisites: CHEM 300, MATH 106, and MATH 107 or equivalents; PHYS 206/256 or equivalent; or permission of the department head.

Elective course; not open to physics majors.

A survey of the field of nuclear science particularly as applied to chemistry.

Lecture: three hours.

CHEM 315 and CHEM 316 *Physical Chemistry Laboratory I & II* One Credit Hour Each Semester

Prerequisite: MATH 107, 232 or 234

Corequisites or prerequisites: CHEM 305 and CHEM 306

Required of all chemistry majors; elective to others.

The first semester course will be devoted to attaining skills in the evaluation, analysis, and presentation of experimental data. Topics covered will include graphing techniques, error analysis, extraction of useful quantities from raw data, use of computers in handling data, and the use of spreadsheets. The second semester work will be a hands-on study of experimental physical chemistry, emphasizing the acquisition of data that can be analyzed using the skills learned in the first semester.

CHEM 320 *Polymer Chemistry* Three Credit Hours

Prerequisites: CHEM 208, CHEM 305 or approval of instructor

A general overview of polymer chemistry which includes mechanisms of polymerization, reactions of monomers, molecular weight distributions and limitations, polymer morphology and rheology, structure elucidation, applications, and industrial processing.

Lecture: three hours.

CHEM 401 *Inorganic Chemistry I* Three Credit Hours

Prerequisites: CHEM 208, CHEM 305 or approval of instructor

Required of all chemistry majors.

An introduction to the systematic chemistry of the elements and the structures and reactions of their compounds. Topics covered include atomic and bonding theories, acid-base theories, symmetry and spectroscopy, and chemistry of the main group elements.

Lectures: three hours.

CHEM 402 *Inorganic Chemistry II* Three Credit Hours

Prerequisites: CHEM 401

Required of all B.S. chemistry majors; elective to others.

The chemistry of the transition metals, including bonding theories, coordination compounds, organometallic chemistry, catalysis and bioinorganic chemistry.

Lecture: three hours.

CHEM 403 *Special Topics in Chemistry* Three Credit Hours

Prerequisites: CHEM 208, and CHEM 305

Required of B.S. Chemistry majors; elective to others.

An in-depth study of a selected topic in chemistry that requires a thorough understanding of organic chemistry. Topics vary depending on student interest and instructor availability.

Lecture: three hours.

CHEM 404 *Advanced Topics in Chemistry* Three Credit Hours

Prerequisites: CHEM 300, CHEM 305, and CHEM 315

Elective course.

A detailed study of a selected contemporary topic will be presented at a level that requires comprehension of the subject matter covered in the physical chemistry and quantitative analysis courses.

Lecture: three hours.

CHEM 408 *Spectroscopic and Identification of Organic Compounds* Three Credit Hours

Prerequisites: CHEM 306, 316

Emphasis in this course will be placed on the spectroscopic techniques used in the identification of organic compounds. Techniques discussed and/or employed will include mass spectrometry and infrared, proton, and carbon NMR spectroscopy. Where applicable, the student will get practical experience in operating the instruments to complete course assignments.

CHEM 409 *Biochemistry* Three Credit Hours

Prerequisites: CHEM 207, CHEM 208, CHEM 217, and CHEM 218

Elective course.

A coverage of the chemistry of amino acids, peptides and proteins; enzymes; biochemical energetics; carbohydrates and their metabolism and storage; Kreb's cycle; electron transport system and oxidative phosphorylation; lipids with emphasis on fatty acid oxidation and synthesis and lipid biosynthesis; amino acid metabolism.

Lecture: three hours.

CHEM 412 *Preparation and Characterization of Inorganic and Organic Compounds* Two Credit Hour

Prerequisites or corequisites: CHEM 408 and CHEM 402

Experimental techniques including inert-atmosphere techniques employed in the synthesis and characterization of various inorganic, organometallic, and organic compounds. Spectroscopy techniques include infrared and proton NMR spectroscopy.

Laboratory: six hours.

CHEM 419 *Senior Research I* Two Credit Hours

Required of all B.S. Chemistry majors; elective to others with permission of the department head.

This course provides an introduction to a research topic of the student's choosing and under the direction of a faculty advisor. After the topic has been approved by the faculty advisor, the student will be allowed to initiate the project. Using this topic, the student will be required to develop a research proposal which will be presented in the form of a seminar to the Chemistry Department Faculty and the chemistry majors.

CHEM 420 *Senior Research II* Two Credit Hours

Prerequisite: CHEM 419

A continuation of CHEM 419 in which the research project is completed and the data and results are compiled into a senior thesis. To finalize the project, the student will present a seminar to the Chemistry Department Faculty and chemistry majors and defend the thesis before a committee of faculty members from the Chemistry Department.

CHEM 425 *Senior Thesis I* Two Credit Hours

Required of all B.A. Chemistry majors.

This course requires an exhaustive literature search and the presentation of a seminar to the Chemistry Department Faculty and chemistry majors.

CHEM 426 *Senior Thesis II* Two Credit Hours

Prerequisite: CHEM 425

A continuation of CHEM 425 in which the literature review is continued and expanded into a senior thesis. To finalize the project, the student will present a seminar to the Chemistry Department Faculty and chemistry majors and defend the thesis before a committee of faculty members from the Chemistry Department.

## Geology Course Descriptions

GEOL 201 *Introduction to Earth Science I* Three Credit Hours

Note—Education majors taking this course as a requirement must take GEOL 211 (lab) as a corequisite.

A study of the materials and processes of the earth including minerals and rocks, weathering and soils, mass wasting, surface and ground water, glaciers, deserts, earthquakes, plate tectonics, volcanoes, crustal deformation and mountain building, geochronology, fossils, and geologic history of the earth.

Lecture: three hours.

GEOL 202 *Introduction to Earth Science II* Three Credit Hours

Note—Education majors taking this course as a requirement must take GEOL 212 (lab) as a corequisite.

A study of oceans, continental margins, sediments, currents, tides, waves, shoreline features; weather and climate, atmospheric moisture, pressure and wind, hurricanes and tornadoes, air pollution, weather modificatio; astronomy, earth/

moon relations, solar system, stellar properties, and the origin of the universe.

Lecture: three hours.

GEOL 211 *Earth Science Laboratory I* One credit hour

Corequisite: GEOL 201

A series of laboratory exercises that parallels the subjects covered in GEOL 201.

Laboratory: two hours.

GEOL 212 *Earth Science Laboratory II* One credit hour

Corequisite: GEOL 202

A series of laboratory exercises that parallels the subjects covered in GEOL 202.

Laboratory: two hours.

GEOL 303 *Geology for Engineers* Three Credit Hours

Required of and limited to juniors in civil engineering.

Minerals and rocks; structural geology; surface and ground water; other processes which shape the surface of the earth and their influence on engineering practice; earthquakes; geophysical exploration; geologic maps.

Lecture: two hours; laboratory: two hours.

GEOL 308 *Environmental Geology* Three Credit Hours

Prerequisite: none (GEOL 201 or GEOL 303 is recommended)

May not be substituted for GEOL 303

A study of the relationship between people and their geologic environment including such topics as hurricanes, floods, water and air pollution, energy and mineral resources, volcanic activity, and earthquakes.

Lecture: three hours.

## Geography Course Descriptions

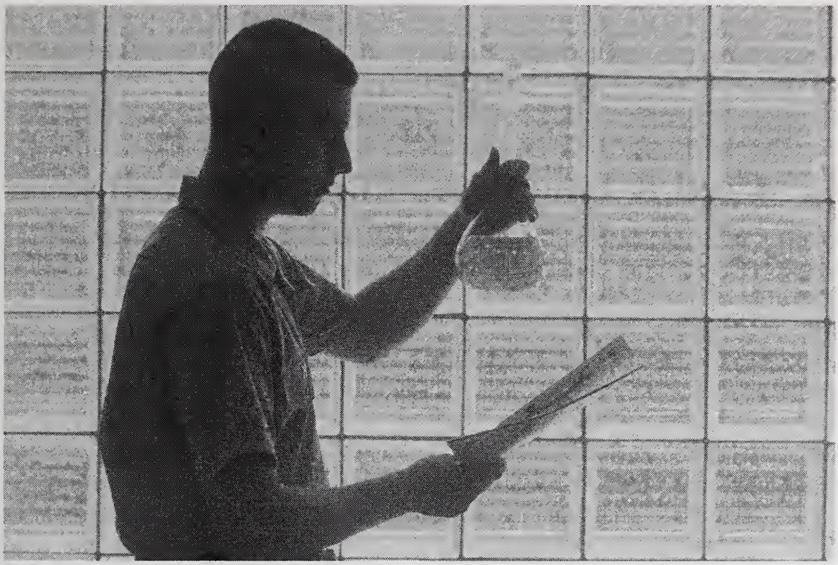
GEOG 209 *World Geography* Three Credit Hours

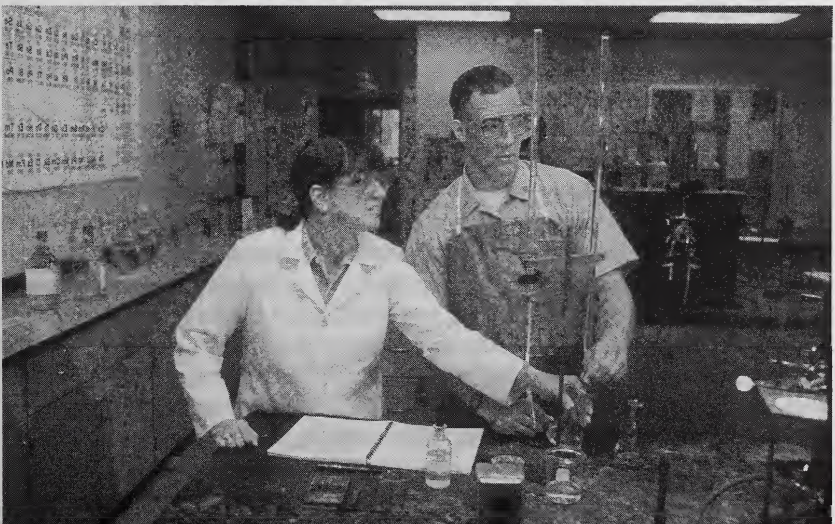
Formerly GEOG 109.

A course dealing primarily with the elements and principles of geography. Familiarity with important global features and locations is stressed. Topics include maps, oceans, atmosphere and winds, climate (elements and patterns), landform, soils and agriculture, mineral resources and industry.

GEOG 311 *Economic Geography* Three Credit Hours

The geographic foundations and distributions of economic activities in different parts of the world.





# Department of Civil & Environmental Engineering

Department Head: Fallon
Professors: Fallon, Dion
Associate Professors: Anessi, Stout, Woo, Brannan, Murden
Assistant Professor: Davis

**Department's Mission Statement**

The mission of the Department of Civil and Environmental Engineering is:

1. To provide a high quality program of studies through a four year rigorous curriculum that integrates the important concepts of design with a solid theoretical foundation for the pursuit of a professional career in civil engineering;
2. To prepare students to pursue life long learning, postgraduate studies, and;
3. To provide an educational background broad enough to meet the requirements of good citizenship and enable the graduate to serve in a wide variety of other fields requiring leadership, teamwork, decision making, and problem solving abilities.

The Department of Civil and Environmental Engineering recognizes that the civil engineer is a people-serving professional who is a manager of resources as well as technology. The civil engineer plans, designs, constructs, and maintains facilities essential to modern life in both the public and private sectors. Accordingly, the department strives to develop the skills of its engineering students in the management of resources—time, materials, money, and people through effective combination of the academic with military discipline. Consistent with the high aims of the civil engineering profession, this department seeks to ensure its academic program is underpinned by a broad base of ethical knowledge and behavior as well as modern leading-edge technology. The department accomplishes its mission through the linkage of the student, faculty, and staff in a special academic community within a quality environment, achieving the intended development of the student through the enriched personal, professional, and educational growth of each individual.

## Departmental Goals and Objectives

The Faculty of the Civil and Environmental Engineering Department as its primary goal seeks to offer and maintain a high quality undergraduate civil engineering education consistent with the present and future needs of a profession serving an increasingly complex technological society. To fullfill this goal the department has as its objectives:

1. To maintain a course of study well-founded in ethical knowledge and behavior consistent with the high aims of the civil engineering profession;
2. To maintain a quality course of study recognized by professional peers nationwide;
3. To maintain a quality course of study that integrates the important concepts of design throughout the entire curriculum preparing students for immediate practice upon graduation;
4. To maintain a quality course of study which will qualify students for graduate school;
5. To continually enhance the teaching effectiveness of the civil engineering faculty;
6. To enhance the professional qualifications of the civil engineering faculty through professional development and scholarly activity;
7. To extend academic opportunities of students to include participation in undergraduate research and development programs;
8. To encourage the professional development of students including an understanding of an engineer's responsibilities of good citizenship and service through participation in engineering, professional, and honorary societies and other activities;
9. To recruit and retain highly qualified students to serve the needs of the civil engineering profession.

A second departmental goal is to provide the support, environment, and resources for the economic, intellectual, and professional advancement of the civil engineering faculty, students, and staff. To fulfill this goal the department has as its objectives:

1. To provide a modern academic building and modern equipment systems;
2. To continually enhance the library collection of civil engineering technical and professional literature;
3. To provide a safe and hazard-free work environment for the students, faculty, and staff.

An additional goal is to extend the capability of The Citadel to serve the citizens of the Lowcountry and the State of South Carolina through instruction and non-instructional activities. To fulfill this goal the department has as its objectives:

1. To extend community service through graduate course instruction in cooperation with other universities;
2. To provide undergraduate civil engineering instruction through the College of Graduate and Professional Studies to Lowcountry students;
3. To provide limited continuing education opportunities for citizens of the Lowcountry, state, and nation;
4. To promote the general effectiveness of The Citadel as a comprehensive educational institution through multidisciplinary cooperation with the other College academic departments as well as with local, state, and national communities.

## Program of Study

The Civil and Environmental Engineering Department's four-year program begins with courses which provide a foundation of knowledge and skill in the basic arts and sciences. Limited specialization in engineering starts during the sophomore year. In the junior and senior years, the time is devoted essentially to basic professional subjects. Throughout the four years, the program emphasizes the development of habits of orderly study, investigation, sound reasoning, problem-solving and design, rather than the mere acquisition of factual information. It is stressed that an engineer is a professional thoroughly grounded in engineering science and technology, but also aware of the social, economic, ethical, and ecological implications of professional activities. The civil engineering curriculum is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Each year the curriculum is augmented by off-campus educators and engineers who lecture and moderate seminars in engineering specialties. Students' sources of knowledge are broadened by participation in these seminars and the student chapters of the American Society of Civil Engineers, Tau Beta Pi (honorary engineering society), Sigma Iota Delta (honorary civil engineering society), and the Society of American Military Engineers.

LeTellier Hall was designed for the needs of civil and environmental engineering education and contains, in addition to laboratories and traditional classrooms, two multi-media classrooms; an assembly room with appropriate audiovisual aids for special lectures and society meetings; and a well-lighted drafting room. Computer facilities in LeTellier Hall are built around 90 MHz Pentium computers with CD ROM drives. The 23 computers in the main laboratory have direct connections to the campus-wide network and the Internet. These computers provide students with graphically-based access to civil engineering course resources on the Department's Web Server and to the Citadel's VAX cluster and

Novell servers for e-mail and printing. Available software required to support class activities includes word processing, CAD, and computational. In a separate laboratory, eight additional computers are equipped as CAD workstations with digitizers and plotters. Geographic Information System (GIS) software is also available for students enrolled in geomatics.

*Materials Testing Laboratory:* Major items of equipment include a 400,000-pound universal hydraulic testing machine with a clearance of 8 feet for column testing and with a 36-inch-wide working platform; a 250,000 pound concrete cylinder testing machine; a 60,000-pound hydraulic universal testing machine; a 10,000-inch-pound torsion machine; and equipment for making tension, compression, shearing, and most other accepted and significant tests on metals concrete, wood and other structural materials. A transmission Polariscope and related equipment are available to investigate in a wide variety of two dimensional photo-elastic models.

*Construction Materials Laboratory:*
Bituminous Materials Testing. This laboratory contains equipment for making the significant quality control and identification tests on asphalt cements, cutback asphalts, and asphalt emulsions. Equipment for the design, mixing, compaction, and testing of asphalt concrete paving mixtures by the Marshall and other methods is included.

Concrete Materials Laboratory: A curing room, mixing equipment, air entraining measuring apparatus, scales, and other minor equipment are provided in this laboratory. Testing is accomplished using materials laboratory equipment.

*Geotechnical Laboratories:* The two soils laboratories are equipped with both scale and deadweight consolidmeters, triaxial and direct shear machines, unconfined compression machines, permeameters, Atterberg limit equipment, Proctor and modified AASHTO compaction apparatus, standard sieves, soil hydrometers, C.B.R. apparatus, and other equipment needed for tests and experiments with soils.

*Fluid Mechanics Laboratory:* Equipment is provided for a wide variety of experiments and tests involving the flow of water over weirs or through pipes, meters, orifices, or a Parshall flume. Other major items of equipment include a head loss and flow measurement fluid circuit apparatus, a Reynolds number device, two (2) hydraulic demonstration units permitting experiments involving many phenomena of open channel flow, and a centrifugal pump equipped to measure input and output of energy.

*Environmental Engineering Laboratory:* Equipment is provided for water analysis determination (primarily according to “Standard Methods”) of pH, alkalinity, turbidity, and color. Bacteriological examinations may also be made for wastewater analysis, biochemical oxygen demand, and solids content. The equipment includes incubators, a muffle furnace, pH meters, electrophotometic devices, an autoclave, a constant temperature refrigerator, a drying oven, a water still, a fume hood, and essential minor tools and equipment.

*Other engineering equipment:* Adequate drafting equipment is available for the courses in engineering drawing, surveying, geomatics, as well as for the junior and senior courses. This equipment includes planimeters, transits, levels, theodolites, level rods, chains, tapes and electronic distance measuring devices. Three Geographic Positioning System (GPS) receivers have been recently acquired by the department for use in the geomatics courses.

*Degree:* The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies outlined in the course offerings section of this catalog.

Two humanity or social science electives, one technical elective, and one civil engineering design elective are required. These are selected from a list of approved electives maintained by the Civil and Environmental Engineering Department. In completing the two humanities or social science electives, the student will take one from the core curriculum. The other shall be an approved course where an advanced level of study is achieved. The civil and environmental engineering design elective allows the students to specialize in a technical area of civil engineering by completing a design course at the senior level that integrates principles and practices of earlier courses into the design of the engineering system. Students who are on academic probation will not be permitted to enroll in upper level courses offered by the civil and environmental engineering department (i.e. junior and senior level classes). All scheduled freshman and sophomore level engineering, science, and mathematics courses must be completed before a student will be permitted to enroll in senior level courses offered by the Civil and Environmental Engineering Department.

## Civil and Environmental Engineering Course Descriptions

CIVL 101 *Engineering Drawing* Two Credit Hours

Required of all civil engineering freshmen.

Use and care of drawing instruments; proper weights and types of lines for clear-cut and complete graphical representation; auxiliary and sectional views; pictorial representation with emphasis on isometric drawing, dimensioning, true lengths, and shapes; problems on points, lines, and planes; development of a reasonable skill in lettering. An introduction to computer graphics is presented.

Laboratory: four hours.

CIVL 102 *Introduction to Civil and Engineering Environmental Engineering* Two Credit Hours

Required of all civil engineering freshmen.

The engineering process from problem formulation to the evolution of creative design is demonstrated through the practical solution of engineering problems. Emphasis is placed upon analytical and problem-solving techniques such as estimation and approximation; numerical aids to computation; and solutions by digital computer and by graphical methods. Problems are selected from the various areas of civil engineering such as surveying, environmental, structural, geotechnical, and highways. Computer instruction includes an introduction to Windows, MATHCAD and spreadsheets. When authorized by the department head, ELEC 103 may be substituted for this course.

Laboratory: four hours.

CIVL 202 *Statics* Three Credit Hours

Corequisites: MATH 131 (Analytic Geometry and Calculus I) and PHYS 210 (Physics for Engineers and Physical Scientists)

Required of all civil engineering sophomores.

Scalar and vector solutions of problems in statics; resultants, reactions, and equilibrium of forces; analysis of simple trusse; friction; centroids and centers of gravity; and moments of inertia.

Lecture: three hours.

CIVL 205 *Surveying* Three Credit Hours

Corequisite: CIVL 101, CIVL 235

Required of all civil engineering sophomores.

Linear measurements, leveling, compass and transit/theodolites, theory of errors, latitudes and departures, areas, stadia, plane table, coordinate geometry, state plane coordinates, standard map projections and introduction to the use of electronic distance measuring devices.

Laboratory: three hours.

CIVL 207 *Geomatics* Two Credit Hours

Prerequisite: CIVL 205 and CIVL 235; corequisite CIVL 237, CIVL 102.

Required of all civil engineering sophomores.

Land surveying and boundary laws, public land surveys, topographic mapping, astronomic control for mapping, Geographic Positioning Systems (GPS), remote sensing, and Geographic Information Systems (GIS).

Lecture: two hours.

CIVL 209 *Computer Application for Civil and Environmental Engineering* Two Credit Hours

Required of all civil engineering sophomores.

Instruction in computer applications to problems chosen from civil engineering fields and fields clearly related thereto. Development of computer-based methods for analyzing civil engineering systems. The focus of the course is on algorithm development and implementation.

Lecture: one hour; laboratory: two hours.

CIVL 235 *Surveying I Laboratory* One Credit Hour

Corequisite: CIVL 205

Required of all civil engineering sophomores.

Application of principles obtained in CIVL 205 through actual field work. Horizontal control activities include distance measurements by tape and EDM, angular measurements by transit and theodolite, traversing, traverse closure computations, balancing computations, and preparation of boundary plat. Computer applications and computer-aided drafting are available.

Laboratory: two hours.

CIVL 237 *Geomatics Laboratory* One Credit Hour

Prerequisite: CIVL 235; corequisite: CIVL 207

Required of all civil engineering sophomores.

Applications of principals obtained in CIVL 207 through actual field work and office type work. Preparation of a topographic map, Geographic Positioning Systems mapping controls, Geographic Information System applications, and photogrammetric mapping applications.

Laboratory: two hours.

CIVL 301 *Dynamics* Three Credit Hours

Prerequisites: CIVL 202 with a grade of "C" or better.

Required of all civil engineering juniors.

Kinematics and Kinetics of particles or rigid bodies in plane motion with emphasis on the special cases of translation and rotation. The techniques of vector mathematics are employed.

Lecture: three hours.

CIVL 304 *Mechanics of Materials* Three Credit Hours

Prerequisites: CIVL 202 with a grade of "C" or better.

Required of all civil engineering juniors.

Elastic properties of structural materials, internal stresses and strains, principal stresses and strains including Mohr's Circle, axial, torsion, flexure, shear, riveted and bolted joints, combined stresses, shear and moment diagrams, beam deflections. Supplemented by CIVL 307. Taken concurrently with or subsequently to CIVL 304.

Lecture: three hours.

CIVL 305 *Transportation Engineering* Three Credit Hours

Prerequisite: CIVL 101, CIVL 102, CIVL 207, CIVL 237

Required of all civil engineering juniors.

Development and interrelationships of United States transportation systems; planning, financing, and design of land transportation, airport, and seaport facilities. Includes road and railroad geometric and drainage design, sedimentation and erosion controls, airport layout and design, and design of harbors and port facilities.

Lecture: three hours.

CIVL 302 Highway Engineering Three Credit Hours

Prerequisite: CIVL 305; corequisite: CIVL 327

Required of all civil engineering juniors.

Alignment and earthwork drawings and computations; earthwork operations; routine tests of bituminous and nonbituminous highway materials; pavement and basic thickness design; design and testing of asphalt paving mixtures; construction of roadway elements; construction surveys; and an introduction into construction specifications. Problems are solved by both manual and computer methods. Preparation of construction plans for a short highway, including reducing field notes, plotting, design of horizontal and vertical control, storm drainage design, earthwork determination, and mass diagram calculations.

Lecture: three hours.

CIVL 307 *Materials Laboratory* One Credit Hour

Prerequisite: ENGL 102; prerequisites or corequisites: CIVL 209, CIVL 304.

Required of all civil engineering juniors.

Laboratory supplement to CIVL 304. Introduction to the use of testing machines and equipment; strength and deformation measurements of ferrous and non-ferrous metals, concrete, and wood; properties of materials as determined by results of tests in compression, tension, bending, torsion; behavior of columns; use of electric resistance strain gages; use of ASTM specifications and test procedures.

Laboratory: two hours.

CIVL 309 *Structural Analysis* Four Credit Hours

Prerequsites: CIVL 304 with a grade of "C" or better and MATH 132 (Analytic Geometry and Calculus II)

Required of all civil engineering juniors.

Structural analysis of determinate and indeterminate beams and frames using classical, approximate and computer-based methods.

Lecture: four hours.

CIVL 310 *Statics and Mechanics of Materials for Non-Civil Engineers* Three Credit Hours

Prerequsites: MATH 132 and PHYS 210/260

Vector solutions of problems in statics; principles of statics, resultants, reactions, and equilibrium of forces. In addition, the brief study of mechanics of materials including stress and strain relationships and various types of loading on structural members.

Lecture: three hours.

CIVL 312 *Introduction to Environmental Engineering* Three Credit Hours

Prerequsites: CHEM 151/161

Required of all civil engineering juniors.

Introduction to water, air, solid and hazardous waste (including radioactive material), and noise pollution and its control. Included are social and ethical considerations, legal and regulatory principles, risk analysis, the effect of pollutants on the environment, and the engineering principles governing the generation and control of these pollutants.

Lecture: three hours.

CIVL 313 *Hydrology and Water Resources* Three Credit Hours

Prerequsites or corequisite: CIVL 315

Required of all civil engineering juniors.

Hydrologic principles and application; hydrologic cycle which includes precipitation, evaporation/transportation, and infiltration; groundwater flow theory and application; measurement of surface water flow; hydrography development; extreme flow analysis; flood routing; design of storm water conveyance systems; and water storage applications.

Lecture: three hours.

CIVL 314 *Engineering Administration* Two Credit Hours

Required of all civil engineering juniors.

An elementary course in engineering administration with primary attention given to the basic principles of engineering economy as applied to the economic analysis of the costs of construction and operation of various engineering works. Computer applications in cost analysis. In addition, the course covers engineering ethics as applied by practicing engineers.

Lecture: two hours.

CIVL 315 *Fluid Mechanics* Three Credit Hours

Prerequisite: CIVL 209 and CIVL 301

Required of all civil engineering juniors.

An introduction to fluid characteristics, properties, and the fundamentals of fluid statics, fluid dynamics, fluid flow, and fluid measurements. Hydraulics, a practical application of fluid mechanics involving the flow of water, investigates the properties of orifices, weirs, flumes, pipes, and open channels, including their engineering applications. Classroom assignments will include design problems and problem solving using computers.

Lecture: three hours.

CIVL 327 *Asphalt and Concrete Laboratory* One Credit Hour

Prerequisite CIVL 307; corequisite CIVL 302.

Required of all civil engineering juniors.

Laboratory applications involving design, preparation, curing and testing of asphalt and Portland cement concrete. Includes testing for component properties, component selection and grading, material handling, mix design, blending, applicable standards and specifications, construction practices, quality control, specimen testing and safety. Emphasis is placed on professional laboratory report preparation.

Laboratory: two hours.

CIVL 402 *Geotechnical Engineering Laboratory* One Credit Hour

Prerequisites: CIVL 409; corequisite: 410

Required of all civil engineering seniors.

Field and laboratory applications of typical methods for determining engineering properties of cohesive and granular soils. Experimental topics include specific gravity, particle size distribution, clay soil consistency, engineering classification, permeability, compaction, consolidation, *in situ* soil properties, soil boring and sampling techniques, and shear strength parameter determination using unconfined direct, triaxial, vane shear and penetration apparatus.

Laboratory: two hours.

CIVL 404 *Reinforced Concrete Design* Three Credit Hours

Prerequisite: CIVL 309

Required of all civil engineering seniors.

Design of reinforced concrete structures using strength design theory. Design of beams, columns, combined stress members, footings, and retaining walls. Special attention is given to the use of current specifications for design and construction. The use of computer programs to facilitate analysis and design during the comprehensive problem is encouraged.

Lecture: three hours.

CIVL 406 *Steel Design* Three Credit Hours

Prerequisite: CIVL 309

Required of all civil engineering seniors.

Theory and design of steel structures using the load and resistance factor design method. Design of tension and compression members, beams and columns. Computer solutions are utilized for design shears, moments, and axial loads.

Lecture: three hours.

CIVL 408 *Water and Wastewater Systems* Three Credit Hours

Prerequisite: CIVL 315, CHEM 152/162, CIVL 312.

Required of all civil engineering seniors.

Introduction to engineering design principles and practices of the collection, transportation, and treatment of water and wastewater.

Lecture: three hours.

CIVL 409 *Introduction to Geotechnical Engineering* Three Credit Hours

Prerequisites: CIVL 304, CIVL 315, and GEOL 303

Required of all civil engineering seniors.

Introduces the student to the rudiments of theoretical soil mechanics. Topics include engineering uses of soils; laboratory and field determination of soil properties; determination of phase relationships; engineering soil classification; soil-water interaction and seepage flow mechanics; stress effects of loading on soils at depth; and consolidation, compaction, shear strength, and bearing capacity theory.

Lecture: three hours.

CIVL 410 *Geotechnical Engineering II* Three Credit Hours

Prerequisite: CIVL 409; corequisite CIVL 402

Required of all civil engineering seniors.

An introductory course in geotechnical analysis and design. Topics include shallow foundations, spread footings, deep foundations, piles and caissons, lateral earth pressure for cohesive and cohesionless soils, slope stability analysis, subsurface investigations and special topics including such subjects as soil stabilization methods, geotextile applications, liquefaction, etc.

Lecture: three hours.

CIVL 418 *Fluid Mechanics Laboratory* One Credit Hour

Prerequisite: CIVL 315

Required of all civil engineering seniors.

Accomplishments of laboratory exercises and experiments to illustrate basic concepts of fluid mechanics and to validate empirical formulas used in hydraulic computations. Principal emphasis is on the phenomena associated with closed conduit and open channel flow of water measurement of velocities and flow rates and operational characteristics of pumps. A minimum of one experiment will involve the use of the computers to evaluate laboratory data.

Laboratory: two hours.

CIVL 419 *Environmental Engineering Laboratory* One Credit Hour
Prerequisite: CIVL 408
Required of all civil engineering seniors.

Accomplishment of chemical, physical, and microbiological determinations used in the examination of water and wastewater. Laboratory analysis to evaluate water quality will be performed, such as biochemical oxygen demand, suspended solids, ph, alkalinity, and others. A minimum of one laboratory experiment will involve the use of the computer to evaluate laboratory data.

Laboratory: two hours.

CIVL 430 *Senior Research I* One Credit Hour
Required of all civil engineering seniors. One hour seminar course which deals with professional issues.

CIVL 431 *Senior Research II* One Credit Hour
Required of all civil engineering seniors.
Prerequisite: CIVL 430

## Approved Electives

The following courses are offered on demand. They constitute part of a list of courses (including courses offered by other departments) which are approved by the head of the Department of Civil and Environmental Engineering as satisfying the requirement that each civil engineering major complete a three-credit-hour technical elective.

CIVL 316 *Modeling Civil Engineering Systems* Three Credit Hours
Prerequisite: MATH 234 or permission of department head

Modeling the behavior of a wide range of civil engineering systems using various analytical, computer-based, numerical, and experimental techniques. Introducing the concepts of probabilistic modeling using Monte Carlo Analysis.

Lecture: three hours.

CIVL 411 *Engineering Management* Three Credit Hours
Prerequisite: Completion of all freshman, sophomore, and junior courses or approval of the department head. Required for civil engineering majors.

Technique of engineering planning and management using the critical path method. Both computer and noncomputer approaches are used. Relationships between owners, A-Es, and contractors are covered with emphasis on proper ethics and professional conduct by the engineer.

Lecture: three hours.

CIVL 421 *Subdivision Planning and Design* Three Credit Hours
Prerequisites: CIVL 313, CIVL 302; corequisite: CIVL 408.

The elements of planning a subdivision including an introduction to planning, zoning, subdivision requirements, and review procedures; site development including the integrated design of roadways, storm drainage collection/ retention/ detention systems, sanitary sewer collection and transportations systems (pumping stations and force mains), potable water systems, and construction cost estimates and specification; and economic analysis with individual student participation in preliminary development of single family and multifamily projects on 20 to 25 acre tracts of land. Computer applications include use of spreadsheets and CAD.

Lecture: two hours; laboratory: two hours.

### Civil and Environmental Engineering Design Electives

Each civil engineering major must complete one of the following design courses in the spring of the senior year.

CIVL 422 *Comprehensive Project Design in Environmental Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering, CIVL 313, CIVL 314, CIVL 408.

Application to civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive engineering problem devoted to water resources/ environmental engineering.

Lecture: two hours; laboratory: two hours.

CIVL 423 *Comprehensive Project Design in Structural Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering.

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive structural engineering problem involving other aspects of civil engineering.

Lecture: two hours; laboratory: two hours.

CIVL 424 *Comprehensive Project Design in Geotechnical Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering.

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive geotechnical engineering problem involving other aspects of civil engineering.

Lecture: two hours; laboratory: two hours.

CIVL 425 *Comprehensive Design Project in Engineering Practice* Three Credit Hours

Prerequisite: Senior standing in civil engineering.

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive problem of general engineering practice involving other aspects of civil engineering. CIVL 421 *Subdivision Planning and Design* satisfies this course requirement.

Lecture: two credit hours; laboratory: two credit hours.

# Department of Education

## PROGRAMS LEADING TO TEACHER CERTIFICATION

Department Head & Director of Teacher Education: Carter (Interim)
Professors: Carter, Clees, Templeton, Reilly, Elksnin, Williams
Associate Professors: Wallace, Ouzts, Brown, Siskind
Assistant Professors: Hewett, Berson, Fallon, Murray

The Director of Teacher Education is the college official charged with the responsibility for the development, implementation, administration, and monitoring of all teacher education activities at The Citadel. The director assures that all Citadel programs meet the standards and criteria set forth by:

1. The South Carolina General Assembly;
2. The South Carolina Department of Education;
3. National Council for Accreditation of Teacher Education Accreditation Standards.

Teacher education at The Citadel is dedicated to the development of teachers for the public schools of the state and nation. Teacher education programs at The Citadel are in the area of secondary education (7-12) with teaching fields of social studies, history, mathematics, science, biology, and English. In addition, a program for K-12 certification in the field of physical education is available.

The Education Entrance Examination (EEE) is a test of basic skills in writing, reading, and mathematics. A student may be admitted to the department for one year pending completion of the EEE. Students who fail this test are afforded a maximum of two additional times to pass the EEE. No student may continue longer than one year in a teacher education program without successful completion of this test.

As an entering freshman, a student may declare a major in education or physical education (teaching track). At this level of admission to teacher education, the responsibility of the student is to complete the EEE and follow the appropriate curriculum. The student must be aware of the importance of maintaining a grade point ratio that will allow full admission to teacher education and the internship in teaching and ultimately graduation. Admission to teacher education is accomplished at the conclusion of 60 semester hours of work. At that time the student must present a grade point ratio of 2.500.

Students who are already enrolled at The Citadel and are contemplating a change of major into teacher education should consider carefully the grade point ratio requirements in teacher education.

### *Admission to Senior Level Study*

When students haves completed 60 hours of course work at The Citadel, they must apply for admission to senior level study. The student's application will be reviewed by the Committee on Admission and Retention. This review will include the following:

- a. An examination of Grade Point Ratio to determine if it is at least 2.500;
- b. Success in completed field experiences;
- c. Evaluations completed by instructors in completed courses in professional education;
- d. Evaluations completed by general education faculty;
- e. Advisor evaluations regarding suitability and interest in teacher education;
- f. A passing score on the EEE.

The Director of Teaching Education will be informed of the results of this review, and an official notice of admission or rejection will be sent to the student.

### *Admission to the Internship in Teaching (EDUC 499, PHED 499)*

Students will be required to make a formal application for admission to the internship in teaching. (April 1 for fall semester or October 1 for spring semester.) This application will be reviewed by the Committee on Admission and Retention.

Admission to the internship in teaching will be contingent on the following criteria:

1. Students must have been admitted to senior level study;
2. All professional education courses must be completed prior to the internship in teaching; (A GPR of 2.500 must have been maintained in these courses for admission and graduation.)
3. A GPR of 2.0 must have been earned in the student's teaching field and a minimum of 2000 hours in the field completed prior to taking the internship in teaching; (The requirement of a 2.000 in teaching field applies to

admission to the internship and graduation.)

4. All freshman and sophomore required courses must be completed prior to the internship in teaching;
5. Demonstrated success in previous field experiences;
6. Students must have an overall 2.500 GPR for admission to the internship in teaching and for graduation;
7. A National Teachers' Examination Speciality Area test score must be on file at The Citadel;
8. The NTE Core Battery test score in Professional Knowledge must be on file at The Citadel.

*Teacher Preparation Programs Are Subject To Legislative Changes.*

The following are objectives that guide the planning and practices of the teacher education faculty:

1. to enable the students to develop scholarship and mastery of a body of knowledge in the selected teaching specialty;
2. to enable the students to become aware of the emotional and psychological needs which they bring to the classroom, their feelings about being in the role of teacher, and the value orientation which they express in their behavior as teachers;
3. to enable the students to develop skills in critical thinking, to make reasoned judgments about controversial issues, and to pursue a disciplined method of inquiry;
4. to enable the students to develop an awareness of the emotional and psychological needs of their pupils, the differing reactions of pupils to their teachers, and the needs for differential responses to each student;
5. to enable the students to evaluate a variety of strategies for teaching and learning, to experience these strategies, and to develop from among them a personal style which fits their own objectives;
6. to enable the students to develop an awareness and understanding of the school in relation to the political and social system and to evaluate their objectives in the light of this relationship;
7. to create in the students an awareness of the school as the transmitter of the dominant values of the society and the implication of this in regard to community expectations about the role of the teacher.

The Citadel offers secondary certification in the teaching fields of English, history, mathematics, science, biology, physical education, and social studies. Each program of study consists of common learnings, professional education requirements, and major teaching field requirements. Specific requirements for each teaching field are presented in the courses of study section of this catalog.

## Education Course Descriptions

EDUC 101 *Education in Modern Society* Three Credit Hours

Open to any interested student.

An orientation to teaching as a profession and to the teacher-training program. Study and discussion on school organization and teachers' roles and responsibilities; personal and professional guidance.

EDUC 202 *Educational Psychology* Three Credit Hours

This course focuses on the dynamics of human learning and the psychological principles that serve as the foundation for educational practice. The general goal is to introduce students to the field of educational psychology and apply the concepts, theoretical principles, and research findings from the discipline of psychology to the planning and implementation of effective instructional strategies in the classroom. Major emphasis is placed on assisting the student in gaining a functional knowledge of the ideas explored. Moreover, through this course the college student who is preparing for employment in the field of education is acquainted with many facets of the teacher's role as a decision maker in the teaching/learning process. Class discussions, activities, and field experience focus on the connections between theory and practice and provide students with opportunities to apply psychological principles and solve practical problems.

Note: Prior to the conclusion of this course, it is expected that students will have completed the EEE (Education Entrance Exam) with scores on file at The Citadel.

EDUC 208 *Teaching Reading in the Secondary School* Three Credit Hours

Prerequisites: EDUC 202

Designed to acquaint prospective middle school and high school teachers with reading practices geared to their students. The course will include a broad survey of the field of reading with attention given to some diagnostic procedures as well as the development of Reading Across the Curriculum programs for the middle school and senior high school levels. Different subject areas will be considered. Field experience in a public school is among course requirements.

EDUC 307 *Child Development* Three Credit Hours
Prerequisite: EDUC 202

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development in childhood. Emphasis on techniques of motivation, principles of learning, learning styles, individual differences, and developmental problems. Field experience is required.

EDUC 308 *Adolescent Development* Three Credit Hours
Prerequisite: EDUC 202

A survey of the basic principles and theories of human development with a focus on adolescents and their educational processes. The field experience is designed to interrelate college classroom learning with public school observations and activities.

EDUC 311 *Social, Cultural, and Philosophical Issues in Education* Three Credit Hours

A survey of the history, philosophies, and theories underlying organized education and the significance of the dissemination of knowledge in a democracy. A field experience in the school community is required.

EDUC 401 *Methods and Materials of Secondary School Teaching* Three Credit Hours
Prerequisites: Admission to Senior Level Study

Study of the aims, methods, and materials employed in secondary school teaching; organization of subject matter; motivation and direction of learning; development of attitudes, appreciations, and ideals; classroom presentation of formal materials. The utilization of audiovisual hardware and software and the development and use of evaluative instruments in the total teaching-learning process will be emphasized.

EDUC 402 *Special Methods in Teaching* Three Credit Hours
Prerequisites: Admission to Senior Level Study

Special techniques, theories, and materials in teaching in the area of specialization in secondary education, grades 7-12. A. English; B. Science; C. Social Studies; D. Mathematics.

EDUC 409 *Special Topics in Education* Three Credit Hours
Prerequisite: permission of the instructor and/or department head

A course designed for the intensive study of a current problem in the field of education at the undergraduate level.

EDUC 420 *Independent Study/Research* Three Credit Hours

Prerequisite: permission of the instructor and/or department head

This course will offer students an opportunity to acquire a deeper knowledge in the area of specialized interest related to the field of education. Prior to enrollment, each student must submit a plan of study to the department. A formal research paper will be required. Credit in independent study/research is limited to 3 semester hours in a degree program.

EDUC 499 *Internship in Teaching* Twelve Credit Hours

Prerequisites: Refer to requirements for admission to internship.

A requirement for certification, observation and teaching in approved schools under approved supervising teachers, supervision by college instructor. Assignment only in major teaching field. This internship covers a minimum of twelve weeks. All students provide their own transportation. Formal application for internship in teaching must be made not later than April 1 for fall semester or October 1 for spring semester.

## Fine Arts Course Descriptions

FNAR 205 *Music Appreciation* Three Credit Hours

A non-technical course to enhance the student's understanding and enjoyment of music by a twofold approach: first, to gain fundamental knowledge of style, content, and form of the most outstanding works of the great composers; and second, to study the evolution of musical art up to the present time; particular emphasis is placed upon the latter.

FNAR 206 *Art Appreciation* Three Credit Hours

The theory of abstract principles and material techniques as applied in the evaluation of works of art. The employment of such theory in an introductory study of famous art works.

FNAR 207 *Survey of Art History* Three Credit Hours

An introduction to the art of China, Egypt, the Mediterranean under Rome, Byzantium, and Gothic Europe. Art works from Africa, India, and Japan will also be considered. Major works will be discussed in relation to their cultural and philosophical context and content.

FNAR 209 *Music Theory I* Three Credit Hours

Study of the components of musical composition; construction of major and minor scales, identification of harmonic and melodic intervals, construction of primary triads and their inversions, transposition of band instruments, sight singing and ear training.

FNAR 210 *Music Theory II* Three Credit Hours

Prerequisite: FNAR 209

Continuation of Music Theory I. The structure and use of all diatonic chords and their inversions, identification of nonharmonic tones, introduction to modulations, sight singing and ear training.

# Department of Electrical Engineering

Department Head: Askins
Professors: Askins, Dornetto
Associate Professor: Dunlop
Assistant Professor: Epple, Murphy, Hubbard

## General Information

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. Because World War II intervened, the first electrical engineering degrees were awarded to the class of 1948. It is the purpose of the department to prepare the individual for professional work or for graduate study in the field of electrical engineering and to provide as many of the elements of a broad education as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering. The electrical engineering curriculum places emphasis on a broad liberal education base, a strong background in mathematics and basic sciences, and a logical sequence of electrical engineering courses that provide the breadth and depth necessary for continuous professional growth in today's technological society. In the junior year the electrical engineering student normally selects an area of professional emphasis such as computer engineering control systems, communication systems, electronics, or power systems. An integral part of the program is the design component that develops the student's ability to address practical engineering problems. This is accomplished by the inclusion of engineering design concepts throughout the curriculum and capped by a mandatory two-semester senior design course in which the students undertake significant design projects.

A student branch of the Institute of Electrical and Electronics Engineers was established in 1962 and is active at The Citadel. Students of the junior and senior classes who meet the academic requirements may be elected to Tau Beta Pi, the national engineering honor society.

Convinced of the great value of practical experience, the department encourages its majors to obtain gainful employment in electrical engineering or a related field for at least one summer, preferably between the junior and senior years.

The electrical engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

## Electrical Engineering Program

In addressing its mission, the department strives, through small classes and hands-on experience in laboratories closely monitored by full-time faculty, to provide an environment highly conducive both to learning and to the development of close student-faculty relationships.

## Electrical Engineering Program Objectives

To ensure students acquire a solid foundation in the basic sciences, mathematics, engineering topics, and in the application of these sciences to the solution of practical engineering problems.

To provide a cohesive set of sequenced courses designed around a strong core curriculum to produce graduates who have developed the broad educational abilities provided by a modern postsecondary education and who have the breadth and depth required to practice engineering within the electrical engineering discipline in a technological society.

To ensure students develop oral and written communication skills and computer skills required of engineers in a technological society.

To ensure students develop strong leadership and teaming skills.

To provide up-to-date laboratory equipment so our graduates are familiar with the capabilities, application and operation of the quipment currently used in engineering analysis, design, and research environments.

## Electrical Engineering Curriculum

The electrical engineering educational experience starts in the freshman introductory courses, ELEC 104 and ELEC 105, with team case studies that require the communication of creative ideas. The study of electrical engineering topics in the sophomore year has 6 credit hours of electric circuit analysis, 1 credit hour of electrical laboratory, and 2 credit hours of computer applications for electrical engineers. Theory is combined with application, demonstration, and experimental verification. In addition to these credit hours, the first two years include 16 hours of mathematics, 8 credit hours of chemistry, 8 credit hours of physics, and 18 credit hours of English and history—which constitute the foundation of an engineering education.

The electrical engineering courses in the junior year are all required; they total 24 credits. Breadth of coverage is provided by these courses in linear circuit analysis, electronics, systems (automatic controls), digital circuits and systems, electromagnetics, and electromechanical energy conversion. Engineering design emphasis among these courses has been determined by the experience and best judgment of the department faculty. The student's fifth mathematics course, MATH 335 (Applied Mathematics II), provides coverage of mathematical topics required in upper division electrical engineering courses. This course is scheduled in the first semester of the junior year. There is only one elective in the junior year; it is technical in nature and outside the mainstream of electrical engineering.

The senior year provides depth in electrical engineering by requiring five out of an available ten 400-level electrical engineering elective courses taught within the department. The elective courses are: ELEC 401 (Electronics II), ELEC 403 (Electric Power Systems), ELEC 405 (Electrical Measurements), and ELEC 415

(Electrical Measurements Laboratory), ELEC 407 (Systems II), ELEC 413 (Advanced Topics in Electrical Engineering), ELEC 414 (System Simulation), ELEC 416 (Communications Engineering), ELEC 423 (Digital Signal Processing), ELEC 424 (Solid-State Devices), and ELEC 426 (Antennas and Propagation). These electives provide the student the opportunity to pursue an area of interest. Narrow specialization is not possible. These three-credit electives provide depth in both design and theory in their specialized areas. (Note: ELEC 413 [Advanced Topics], is offered only occasionally.)

## Electrical Engineering Design Experience

Engineering design is distributed throughout the electrical engineering curriculum. Introduction to the design process and the initial design experience occur in the freshman courses, ELEC 104 and ELEC 105. The engineering profession and the ethical responsibilities of professional engineers are discussed. Design problems are posed that require little or no in-depth engineering knowledge. For example, a first design problem might ask the student to design a dormitory room workplace. Functionality, aesthetics, and cost of implementation are a few of the issues to be considered. Case studies are assigned that provide an opportunity for the students to work in teams. The emphasis is on the synthesis of a product that meets broad requirements. The students are introduced to the concept of design in which there is no single right answer and where there are relatively few limits placed on the creative process.

Techniques of analysis, synthesis, iteration, and approximations are studied in the sophomore and junior electrical engineering courses. Specialized design exercises are used to illustrate the use of these techniques in the areas of circuits, systems, electronics, and digital circuits and systems.

The senior year provides the opportunity for the student to begin to focus on a particular area of interest through the choice of at least six senior electrical engineering elective courses. Within these electives, design techniques appropriate to the area of study are taught. Examples range from the use of a load flow program to determine operational conditions of a small power system in a contingency situation (ELEC 403), to the design of a state estimator (ELEC 407), to the design and implementation of digital filters (ELEC 423).

The design experience culminates in the required senior design courses, ELEC 421 and ELEC 422. This two-semester design sequence provides the students the opportunity to work on a project of interest and provides the faculty the opportunity to guide the students in their first major design experiences and emphasize once more the various constraints that may come in to play in a design. The students are taught several different structured design approaches. Project definition and documentation are stressed. Design teams of two to four students are formed at the beginning of the first semester, and one or two design projects are assigned requiring the construction of working prototypes. Students are instructed on various practical aspects of design, such as layout considerations, safety, functionality, and neatness of design. About mid-term of the first semester the student design teams select or propose a major design project to be completed by the end of second semester. They are responsible for obtaining a faculty project advisor to guide their project. At the end of the first semester the design teams present their design proposals (written and oral) that include their preliminary design (block diagram level), a schedule for the following semester, and a cost estimate. In the second semester, the teams design, build, test, refine, demonstrate and document their design projects. In addition to the technical aspects, project management, and presentation techniques are taught and applied. A list of project specifications not subject to arbitrary change is kept, and financial and scheduling aspects of the project are tracked. A final presentation in both written and oral form is required at the end of the semester, along with a working demonstration.

## Minor in Electrical Engineering

**Objectives:** The minor in electrical engineering is designed to allow the student with quantitative and scientific aptitudes and interests to acquire a basic level of competence in one of two fields of electrical engineering.

**Structure of the Minor:**

1. *Required Courses: (9 credit hours)*

| | |
|---|---|
| ELEC 201 & 202 | Electric Circuit Analysis I & II |
| ELEC 204 | Electrical Laboratory |
| ELEC 206 | Computer Applications for Electrical Engineers |

2. *Elective Fields of Emphasis:*

   *a. Digital Electronics: (10 credit hours)*

| | |
|---|---|
| ELEC 306 | Electronics I |
| ELEC 313 | Electronics Laboratory |
| ELEC 311 | Digital Logic and Circuits |
| ELEC 330 | Digital Systems Engineering |

**OR**

   *b. Control Systems: (10 credit hours)*

| | |
|---|---|
| ELEC 309 | Linear Circuit Analysis |
| ELEC 301 | Linear Circuits Laboratory |
| ELEC 312 | Systems I |
| ELEC 407 | Systems II |

3. *Plan of Study:*

   Prerequisites and corequisites for each of the above courses are as presented in the course descriptions below. (Exception: ELEC 104 and ELEC 105 are waived as course prerequisites for the student pursuing a minor in electrical engineering.)

   Total Credit Hours Required — 19

## Electrical Engineering Course Descriptions

ELEC 104 *Engineering Fundamentals I* Two Credit Hours

Required of electrical engineering freshmen.

An introduction to the engineering profession, branches and functions of engineering, professional ethics, and the role of engineers in society. Fundamentals of engineering problem solving and the use of calculators and computers as tools to aid in problem solving.

Lecture: two hours.

ELEC 105 *Engineering Fundamentals II* Two Credit Hours

Prerequisites: ELEC 104 or consent of the instructor. Required of electrical engineering freshmen.

Continuation of Engineering Fundamentals I to include the introduction of subject areas common to most engineering disciplines, such as mechanics, energy, engineering economy, electrical theory, and material balance. Introduction to the design process to include preliminary design team exercises.

Lecture: two hours.

ELEC 201 and ELEC 202 *Electric Circuit Analysis I and II* Three Credit Hours

Prerequisites for ELEC 201: ELEC 104, ELEC 105, MATH 131; prerequisite or corequisites: PHYS 210/260, ELEC 206.

Prerequisites for ELEC 202: MATH 132 with a grade of C or better in ELEC 201; prerequisites or corequisites: ELEC 204, ELEC 206

Required of electrical engineering sophomores.

Basic electrical elements and sources, Ohm's and Kirchoff's Laws, techniques of DC circuit analysis, sinusoidal analysis and phasors, power and three-phase circuits, and transient response of simple circuits.

Lecture: three hours, two semesters.

ELEC 204 *Electrical Laboratory* One Credit Hour

Prerequisites or corequisites: ELEC 202 or ELEC 308, ELEC 206

Required of electrical engineering sophomores.

An introduction to the experimental method. Laboratory exercises are designed to supplement the material presented in ELEC 201 and ELEC 202.

Laboratory: two hours.

ELEC 206 *Computer Applications for Electrical Engineers* Two Credit Hours

Prerequisite or corequisite: ELEC 201 or ELEC 308

Required of electrical engineering sophomores.

The computer is presented as a tool for the solution of electrical engineering problems. High level language programming of computers; the use of application programs such as SPICE for the study of electrical circuits in the time and frequency domains; data manipulation, data plotting, and equation solving using application programs such as MATLAB.

Lecture: two hours

ELEC 301 *Linear Circuits Laboratory* One Credit Hour

Prerequisite: ELEC 204 and corequisite: ELEC 309

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 309.

Laboratory: two hours.

ELEC 302 *Electrical Machinery Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 316

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 316.

Laboratory: two hours.

ELEC 306 *Electronics I* Three Credit Hours

Prerequisites: ELEC 204, ELEC 206 with a grade of C or better in ELEC 202; prerequisite or corequisite: ELEC 313

Required of electrical engineering juniors.

Characteristics of solid-state devices, theory and design of low-frequency amplifiers, transistor biasing and stabilization, design of multistage and feedback amplifiers, and digital circuits.

Lecture: three hours.

ELEC 307 *Nuclear Engineering* Three Credit Hours

Prerequisite: PHYS 212/262

An introduction to the theory and application of nuclear energy. Topics include fission and the chain reaction; nuclear fuels; nuclear reactor principles, concepts, examples, construction, operation, and ecological impact; heat transfer and fluid flow; radiation hazards and shielding; nuclear propulsion; and controlled fusion.

Lecture: three hours.

ELEC 308 *Elements of Electrical Engineering* Three Credit Hours

Prerequisite: MATH 132

Required of civil engineering juniors.

Fundamental electrical concepts and units; basic laws of electrical circuits; equivalent circuits; DC and steady-state AC circuit analysis; and effective current, average power, and three-phase power.

Lecture: three hours.

ELEC 309 *Linear Circuit Analysis* Three Credit Hours

Prerequisites: ELEC 204, ELEC 206, MATH 234, with a grade of C or better in ELEC 202; prerequisites or corequisites: ELEC 301 and MATH 335

Required of electrical engineering juniors.

The study of continuous and discrete systems utilizing Laplace and z-transform theory.

Lecture: three hours.

ELEC 311 *Digital Logic and Circuits* Three Credit Hours

Required of electrical engineering juniors.

Introduction to Boolean algebra; digital data coding; digital arithmetic; design of combinational and sequential circuits; design, construction and evaluation of digital circuits using industry-standard digital integrated circuits.

Lecture: three hours.

ELEC 312 *Systems I* Three Credit Hours

Prerequisites: ELEC 309, ELEC 301

Required of electrical engineering juniors.

An introduction to feedback control systems, system representation, stability, root-locus and frequency response, and compensation.

Lecture: three hours.

ELEC 313 *Electronics Laboratory* One Credit Hour

Prerequisites: ELEC 204, ELEC 206, with a grade of C or better in ELEC 202.

Corequisite: ELEC 306

Required of electrical engineering juniors.

Experimental studies coordinated with the subjects introduced in ELEC 306.

Laboratory: two hours.

ELEC 316 *Electromechanical Energy Conversion* Three Credit Hours

Prerequisite: ELEC 309 or consent of the instructor; prerequisite or corequisite: ELEC 302

Required of electrical engineering juniors.

Analysis of transformers; fundamentals of electromechanical energy conversion; and study of DC, induction, and synchronous machines.

Lecture: three hours.

ELEC 318 *Electromagnetic Fields* Three Credit Hours

Prerequisites: ELEC 204, ELEC 206, PHYS 212/262, MATH 234, MATH 335, with a grade of C or better in ELEC 202.

Required of electrical engineering juniors.

Static and magnetic fields; experimental laws and their relation to Maxwell's equations; Laplace and Poisson's equations; boundary value problems; and time varying fields, plane waves, and transmission line phenomena.

Lecture: three hours.

ELEC 330 *Digital Systems Engineering* Three Credit Hours

Prerequisite: ELEC 311

Required of electrical engineering juniors.

Characteristics, specifications, and design of digital systems; analysis and synthesis of sequential circuits; microprocessor interfacing. Design project required.

Lecture: three hours.

ELEC 401 *Electronics II* Three Credit Hours

Prerequisites: ELEC 306 and ELEC 313

Ideal and non-ideal operational amplifiers, active filters, comparators, and characteristics and applications of modern linear and digital integrated circuits.

Lecture: three hours.

ELEC 403 *Electric Power Systems* Three Credit Hours

Prerequisites: ELEC 206, ELEC 316, and ELEC 318

A study of electrical power generation, transmission, and distribution; load flow, faults, and system stability; and system economics. Design project required.

Lecture: three hours.

ELEC 405 *Electrical Measurements* Two Credit Hours

Prerequisite: Any two 300-level electrical engineering laboratory courses; prerequisite or corequisite: ELEC 415.

Precision methods of measuring electromotive force, resistance, current, inductance, capacitance, and dissipation factor; analysis of instrumentation circuits; design of experiments; analysis of experimental data.

Lecture: two hours.

ELEC 407 *Systems II* Three Credit Hours

Prerequisite: ELEC 312

A continuation of Systems I with primary emphasis on digital control systems. Topics include state-variable analysis, simulation techniques, controllability, state-variable feedback, observability, and state estimator design.

Lecture: three hours.

ELEC 412 *Applied Probability and Statistics for Engineers* Three Credit Hours

Prerequisites: MATH 231, ELEC 309.

Required of all electrical engineering majors.

Application of the theory of probability and statistics in modeling random phenomena and signals; in the calculation of system responses; and in making estimates, inferences and decisions in the presence of chance and uncertainty. Applications will be studied in areas such as communications, power systems, device modeling, measurements, reliability and quality control.

Lecture: three hours.

ELEC 413 *Advanced Topics in Electrical Engineering* Three Credit Hours

Advanced topics in electrical engineering. Offered occasionally when the special interests of students and faculty coincide. The syllabus must be approved by the Electrical Engineering Faculty. This course may be taken only once for credit.

Lecture: three hours.

ELEC 414 *System Simulation* Three Credit Hours

Prerequisites: ELEC 312

An introduction to system concepts, mathematical models of systems, and simulation methods applied to a broad range of systems. Design project required.

Lecture: three hours.

ELEC 415 *Electrical Measurements Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 405

A laboratory course to complement ELEC 405.

Laboratory: two hours.

ELEC 416 *Communications Engineering* Three Credit Hours

Prerequisites: ELEC 330, ELEC 306, ELEC 312, and ELEC 318

Principles of amplitude, frequency, and pulse modulation; signal flow and processing in communications systems; and analog and digital communication systems.

Lecture: three hours.

ELEC 421 *Design I* Three Credit Hours

Prerequisite: ELEC 302, ELEC 306, ELEC 312, ELEC 316, ELEC 330, and ELEC 318

Required of electrical engineering seniors.

A study of the engineering design process; establishment of objectives and evaluation criteria, analysis, synthesis, construction, testing, and evaluation. Exercises in design, documentation, and reporting. Development of a proposal for a major design project for ELEC 422, Design II.

Lecture: one hour; laboratory: four hours.

ELEC 422 *Design II* Three Credit Hours

Prerequisite: ELEC 421

Required of electrical engineering seniors.

Implementation, documentation, and reporting on a major design project. Normally to be accomplished by students working in small groups. All students will make written and oral presentations on their contributions to the project.

Lecture: one hour; laboratory: four hours.

ELEC 423 *Digital Signal Processing* Three Credit Hours

Prerequisite: ELEC 312

Introduction to the characteristics, design, and applications of discrete time systems. Continuous time and discrete time Fourier Transforms. FIR and IIR Systems. Design of FIR and IIR filters. Design of Chebyshev and Butterworth filters. Introduction to the TMS320C25 Digital Signal Processor.

Lecture: three hours.

ELEC 424 *Solid-State Devices* Three Credit Hours

Prerequisites: MATH 335, ELEC 306, and ELEC 318

Basic principles governing the operation of solid-state devices are developed from fundamental concepts. P-N junction theory is developed and applied to the analysis of devices such as bipolar transistors, solar cells, detectors, and photo devices. The theory of field-effect devices is developed.

Lecture: three hours.

ELEC 426 *Antennas and Propagation* Three Credit Hours

Prerequisites: ELEC 318 and MATH 335

Transmission, radiation, and propagation of electromagnetic waves by means of transmission lines, waveguides, optical fibers, and antennas. Design project required.

Lecture: three hours.

# Department of English

Department Head: White
Professors: Redd, Rembert, Tucker, White, Leon, Rhodes, Ozment, Allen, Leonard, Shields
Associate Professors: Holbein, Mathis, O'Neil, Mailloux, Lally, Hutchisson, Thompson

Courses in English composition and literature are required for all freshmen and sophomores, regardless of their major fields of study.

Advanced standing with credits may be given to students who complete the College Entrance Examination Board Advanced Placement Test in English with a grade of three or better or who make a satisfactory score on an English Department placement test.

The English major is designed for students seeking a broad education suitable for a career in law, business, the armed forces, teaching, dentistry, medicine, or theology. In addition to a strong foundation in literature, the department offers a generous selection of elective courses that allows either a truly broad liberal arts education or an opportunity to take a number of courses within a secondary field.

The program within the English Department provides both depth and flexibility. Course offerings range from Anglo-Saxon literature to twentieth-century American literature. Interested students may take courses in creative writing and in journalism. A system of tutorials and seminars allows both small classes and independent study.

Since they are allowed to take as many as nine electives outside the department during their sophomore, junior, and senior years, students have ample latitude to follow other interests. During their freshman and sophomore years, they may take a number of courses ensuring a background in a modern language, the sciences, mathematics, and the social sciences.

In their freshman year English majors must elect one of the natural sciences: biology, chemistry, or physics. Also, they must elect a modern language and complete two years of study. Entering freshmen with two or more units in a modern language may complete the language requirement in one year by starting at the 200 level.

The student majoring in English is required to take the following courses:

English 203 and 204 (Survey of British Literature I and II)
English 211 (Mythology) or 212 (The Bible as Literature)
English 303 or 304 (Shakespeare I or II)
English 301 (Chaucer) or 305 (Milton)
One English course numbered 310-324 (Early British Literature)
One English course numbered 325-336 (Later British Literature)
Two English courses numbered 341-347 (American Literature)
Two English courses numbered 349-499 (World Literature, Criticism, Language, and Writing)
Four English courses numbered 301-499 (English electives)
Philosophy 201 (Introduction to Philosophy)

Unless otherwise indicated in the course descriptions, all advanced English courses are open to all students who have completed their sophomore English requirements (ENGL 201 and ENGL 202, or ENGL 203 and ENGL 204) or who have the approval of the department head.

For a tabulation of the requirements for the English major, see the Courses of Study section of this catalog.

The courses in philosophy are included in the English curriculum under subject code PHIL.

## English Course Descriptions

ENGL 101 & 102 *Composition and Literature I & II* Three Credit Hours Each Semester

Required of all freshmen.

The development of the basic skills of writing, reading, and analysis through the study of literary types. ENGL 101: Reading and evaluating essays; writing paragraphs and essays. ENGL 102: Writing of essays and a research paper on topics pertaining to selected readings in non-British literature. Readings will include poetry and at least one of the other two major genres of imaginative literature (fiction and drama). ENGL 101 is a prerequisite for ENGL 102.

ENGL 201 & ENGL 202 *Major British Writers I & II* Three Credit Hours Each Semester

Prerequisites: ENGL 101 and ENGL 102

Required of all sophomores other than English majors.

Study in depth of major writers in British literature from the medieval period to the present. ENGL 201: *Beowulf*, Chaucer, Shakespeare, Milton, Pope, and Swift. ENGL 202: Wordsworth, Keats, Tennyson, Browning, Hardy, Yeats, and Eliot. Several themes assigned on the literature studied.

ENGL 203 & ENGL 204 *Survey of British Literature I & II* Three Credit Hours Each Semester

Prerequisites: ENGL 101 and ENGL 102

Required of all English majors. Students who have received credit for ENGL 201 and ENGL 202 cannot receive additional credit for ENGL 203 and ENGL 204.

First semester: A study of English literature from its beginnings to the end of the eighteenth century. Second semester: A study of English literature from the end of the eighteenth century to the present. Both courses will include some consideration of historical backgrounds and literary movements.

ENGL 205 *Introduction to Public Speaking* Three Credit Hours

Prerequisite: ENGL 101

Open to freshmen who have completed ENGL 101 and all upper class cadets. The general principles of speech composition and speech presentation; practice in expository speaking.

ENGL 207 *Introduction to Journalism* Three Credit Hours

Prerequisites: ENGL 102

An introduction to print journalism with emphasis on writing news and feature articles.

ENGL 209 *Introduction to Film* Three Credit Hours

Prerequisites: ENGL 102

An introduction to the aesthetics and techniques of cinematic art.

ENGL 210 *The Literature of War* Three Credit Hours

Prerequisites: ENGL 102

A study of selected literature about war, to include the historical background of the literature and ways in which it reflects the attitudes of the authors and of the societies which produced it. The approach of the course will be general and is intended to appeal to a wide audience of students.

ENGL 211 *Mythology* Three Credit Hours

Prerequisite: ENGL 102

A study of mythology with special emphasis on Greco-Roman, Northern European and Eastern myths. A discussion of the leading theories concerning the origins, development, and significance of myths together with the allusive and allegorical use of myth in later literature and art.

ENGL 212 *The Bible as Literature* Three Credit Hours

Prerequisite: ENGL 102

A study of selected portions of the Old and New Testaments as literary masterpieces and cultural monuments, with some attention to the major systems of interpretation.

ENGL 301 *Chaucer* Three Credit Hours

Open to juniors and seniors.

An introduction to Chaucer's language, art, and cultural milieu through readings of *The Canterbury Tales, Troilus and Criseyde,* and some of the shorter poems.

ENGL 303 & ENGL 304 *Shakespeare I & II* Three Credit Hours Each Semester

Open to juniors and seniors.

Each course will present students with different but representative selections from the comedies, histories, and tragedies. Since the courses will not overlap, students may take both.

ENGL 305 *Milton* Three Credit Hours

Open to juniors and seniors.

A study of *Paradise Lost,* of *Samson Agonistes,* and of representative prose works, with special attention to their philosophical content.

ENGL 310 *Literature of Medieval England* Three Credit Hours

Open to juniors and seniors.

A survey of the most important literature composed during the Old English and Middle English periods, exclusive of Chaucer. Some works will be read in the original languages, some in translation.

ENGL 320 *Sixteenth Century Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of the principal English writers of the period, with particular emphasis on the prominent aspects of the Renaissance spirit.

ENGL 321 *Seventeenth Century Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of representative prose prior to the Restoration, of representative poetry of Ben Jonson and his "sons," and of John Donne and the metaphysical poets.

ENGL 322 *English Drama to 1642* Three Credit Hours

Open to juniors and seniors.

A study of representative plays, exclusive of Shakespeare's, from the medieval beginnings of English drama to the closing of the theatres in 1642.

ENGL 323 *Restoration and Early Eighteenth Century Literature* Three Credit Hours

Open to juniors and seniors.

A study of the new spirit of English prose, poetry, and drama which came with the Restoration. Some emphasis will be given to the philosophical, religious, political, and social backgrounds.

ENGL 324 *The Age of Johnson* Three Credit Hours

Open to juniors and seniors.

A study of the decline of Neoclassicism and the movement toward Romanticism in the poetry, fiction, drama, and nonfiction prose of the age.

ENGL 325 *The Romantic Movement* Three Credit Hours

Open to juniors and seniors.

A study of the chief features which culminated in the Romanticism of the nineteenth century, with special emphasis on the five major poets: Wordsworth, Coleridge, Byron, Shelley, and Keats.

ENGL 326 *Victorian Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of the period from 1830 to 1900, showing the effects of the Industrial and Scientific Revolutions on traditional attitudes toward art and life through the works of the major writers of the period, with emphasis upon the poetry of Tennyson, Browning, Arnold, and Hopkins; and upon the prose of Carlyle, Arnold, Mill, and Ruskin.

ENGL 327 *Nineteenth Century British Novel* Three Credit Hours

Open to juniors and seniors.

A study of selected works of major nineteenth century British novelists such as Austen, Scott, the Brontes, Thackeray, Dickens, Eliot, Trollope, and Hardy.

ENGL 332 *Twentieth Century British Fiction* Three Credit Hours

Open to juniors and seniors.

A course in the reading and critical analysis of selected British novels by writers like Conrad, Joyce, Lawrence, Forster, Woolf, and Waugh.

ENGL 336 *Twentieth Century British Poetry* Three Credit Hours

Open to juniors and seniors.

A study of British poets from the 1890s until World War II, with an emphasis on the work of Hopkins, Hardy, the poets of the First World War, Yeats, Thomas, and Auden.

ENGL 340 *Southern Literature to 1900* Three Credit Hours

Open to juniors and seniors.

A survey of the literary achievement of Southern writers from 1710 to 1900.

ENGL 341 *Early American Literature* Three Credit Hours

Open to juniors and seniors.

A study of American writings from the time of the first settlement through the colonial period, ending with early nationalism.

ENGL 342 *American Romantic Literature* Three Credit Hours

Open to juniors and seniors.

A study of American authors from the period of the establishment of a national literature. The course includes such writers as Hawthorne, Poe, Melville, Emerson, Thoreau, and Whitman.

ENGL 343 *Literature of American Realism* Three Credit Hours

Open to juniors and seniors.

A study of American literature following the Civil War and up to the twentieth century. The course includes local colorists and such writers as Dickinson, Twain, James, and Crane.

ENGL 346 *Twentieth Century American Fiction* Three Credit Hours

Open to juniors and seniors.

A study of major American fiction since 1900. Authors studied may include Fitzgerald, Hemingway, Faulkner, Stein, Mailer, Styron, Pynchon, and Toni Morrison.

ENGL 347 *Twentieth Century American Poetry and Drama* Three Credit Hours

Open to juniors and seniors.

A survey of American poetry and drama since 1900. The course will cover such poets as Robinson, Frost, Eliot, Stevens, Pound, Moore, and Bishop, and such playwrights as O'Neill, Williams, Miller, Albee, and August Wilson.

ENGL 348 *Twentieth Century Southern Literature* Three Credit Hours

Open to juniors and seniors.

A study of the most important Southern authors of the twentieth century, with emphasis on significant regional topics such as the Fugitive and Agrarian Movements, the development of the Southern Tradition, and the Southern Gothic School.

ENGL 349 *African-American Literature* Three Credit Hours

Open to juniors and seniors.

A survey of African-American poetry, fiction, and drama, featuring works from the Harlem Renaissance, the Depression, and postwar and contemporary periods.

ENGL 360, ENGL 362, & ENGL 364 *A Survey of World Literature I, II, & III* Three Credit Hours Each Semester

Open to juniors and seniors.

Masterpieces of world literature in translation, including non-Western literature, with special attention to the philosophical content and development of literary forms. ENGL 360: From the *Rig Veda* to Dante. ENGL 362: From Boccaccio through the nineteenth century. ENGL 364: Twentieth century.

ENGL 368 *Twentieth Century Drama* Three Credit Hours

Open to juniors and seniors.

Representative plays of the twentieth century, with emphasis on European and non-Western works.

ENGL 370 *Adolescent Literature* Three Credit Hours

Open to juniors and seniors, but designed for the secondary-school teacher.

A study of literature for the adolescent, including methods of introducing the major literary genres to the secondary-school student.

ENGL 375 *Special Topic in Literature or Language* Three Credit Hours

Open to juniors and seniors.

A study of an individual author, topic, or problem in literature or language.

ENGL 401 *Independent Study* Three Credit Hours

Prerequisites: Approval of the department head.

Open to senior English majors with a GPR of 3.0 or better.

A tutorial course individually designed to meet the needs or special interests of one or a few students. Assignments, tutorial sessions, tests, and papers will be assigned by the professor in consultation with individual students.

ENGL 402 & ENGL 403 *Senior Seminar I & II* Three Credit Hours Each Semester

Open to senior English majors.

A seminar on an individual author, topic, or problem, as suggested by members of the faculty or by groups of English majors and subject to the approval of the department head in consultation with the instructor.

ENGL 407 *Principles of Literary Criticism* Three Credit Hours

Open to senior English majors and to any student who has completed four courses in English above the sophomore level, or to any student with the approval of the department head.

A study of literary criticism from the classical tradition to the modern period.

ENGL 411 *Writing in the Professions* Three Credit Hours

Prerequisite: ENGL 102

The course emphasizes the application of the principles of effective writing and of vocabulary development to a given profession such as law, engineering, or medicine.

ENGL 413 *Advanced Composition* Three Credit Hours

Prerequisite: ENGL 102

The study and practice of advanced writing techniques for those who wish to improve their prose styles. This course fulfills state teacher certification requirements for advanced composition.

ENGL 414 *Modern English Grammar* Three Credit Hours

Open to juniors and seniors, but designed for the secondary-school teacher.

An analysis of the structure of Modern English, its phonology, morphology, and syntax, with explorations into the conceptual basis of language and the way in which grammar generates meaning.

ENGL 415 *The English Language* Three Credit Hours

Open to sophomores with approval of department head, and to juniors and seniors.

A survey of the English language beginning with the Indo-European backgrounds, tracing the development of Old, Middle, and Modern English through major phonological, morphological, and syntactic changes with attention to dialectical variations and semantic changes.

ENGL 426 *Creative Writing: Fiction* Three Credit Hours

Open to juniors and seniors.

A study of the craft of fiction and its most important elements. Students will consider appropriate models and, in a workshop setting, develop their own skills. Requirements include completion of a substantial piece of fiction.

ENGL 427 *Creative Writing: Poetry* Three Credit Hours

Open to juniors and seniors.

A study of the craft of poetry, including the examination of appropriate models and theories, and, in a workshop setting, directed practice in writing. Requirements include completion of six to eight well-crafted poems.

ENGL 499 *Practicum in Professional Writing* Three Credit Hours

Prerequisite: Permission of department head and supervising professor.

Open to seniors.

Students who have demonstrated their ability to write effectively work several hours per week in the Charleston community under the supervision of a professional in law, religion, health, engineering, communications, or other field. Students must provide their own transportation.

## Philosophy Course Descriptions

PHIL 201 *Introduction to Philosophy* Three Credit Hours

An inquiry into the nature of philosophic thinking, especially with regard to the problem of knowledge and the nature of reality. Primary emphasis falls upon the classical origins of Western philosophy.

PHIL 202 *Reasoning and Critical Thinking (Logic)* Three Credit Hours

A study of the principles and methods which distinguish valid from invalid arguments. After a brief examination of what an argument is, the concepts of validity and invalidity are introduced, and a systematic study of the principles governing the application of these concepts to arguments is undertaken. An extensive treatment of traditional Aristotelian logic (the syllogism, rules of validity, immediate inference, etc.) is supplemented by an introduction to principles of modern symbolic logic.

PHIL 301 *Ethics* Three Credit Hours

A study of the nature of morality and moral reasoning through critical analyses of the writings of classical and contemporary thinkers on this subject. Problems regarding the role of reason in human conduct will be examined in detail, with emphasis upon the nature of the good life, happiness, moral obligation and duty, right and wrong, and the nature of moral language.

PHIL 302 *Philosophy of Religion* Three Credit Hours

Prerequisite: three semester hours of philosophy.

An analysis of what religion is, the role it plays in human life, and how it differs from such other areas of life as ethics and science. The arguments for and against the existence of God are examined, as is the appeal to religious experience (e.g., mysticism). Criticism of religion (e.g., that of Freud and Marx) is considered, as are the roles of faith and revelation and the questions of evil and immortality.

PHIL 409 *Seminar in Philosophical Topics* Three Credit Hours

Prerequisites: at least junior standing and consent of the instructor.

A study of selected topics from various fields of philosophy (e.g., philosophy of history, philosophy of science, aesthetics, philosophy of law) with special emphasis upon their contemporary relevance and interdisciplinary character. Content in any given semester to be determined by student needs.

PHIL 410 *Man in Crisis: The Problems of Good and Evil* Three Credit Hours

Prerequisites: at least junior standing and (due to limited enrollment) consent of the instructor.

A critical look at a variety of crises facing modern humanity and how they impact upon society; their trends, right/wrong, good/evil. Consideration of crises in relationship to theology, duty, freedom, honor, justice, law, and happiness. Some lecture, considerable discussion, and classroom presentations.

# Department
# of
# Health and Physical Education

Department Head: Wilson
Professors: Ezell
Associate Professors: Wilson, Carter, Templeton

The purpose of the Department of Health and Physical Education is to provide experiences which will lead to skills, knowledge, and attitudes within the domains of human movement and healthful living which contribute to an improved quality of life.

## Required Physical Education Program

The primary objective of the RPED program is to provide basic instruction in adult physical fitness and recreational sports which will be of both immediate and lasting value for each cadet.

**All cadets are required to complete four semesters of RPED.**

All cadets must take the 250 and 251 sequence.

RPED 250 *Contemporary Health Foundations* Two Credit Hours

The purpose of this course is to provide basic information in the areas of personal health, drug and substance use and abuse, nutrition, and human sexuality. The course is designed to provide the knowledge base for health maintenance and the development of proper health values.

Lecture: two hours.

RPED 251 *Foundations of Fitness and Exercise* Two Credit Hours

This course is designed to teach students what physical fitness is; why they should be fit; how they can evaluate fitness; and what can be done to develop, maintain, and improve levels of fitness. Basic exercise physiology, body mechanics, stress management, and exercise programs and prescriptions are taught.

Lecture: two hours.

**All cadets must successfully complete two activity (100 level) RPED courses. Cadets may elect any two activities from the following courses after demonstrating minimal swimming proficiency. Cadets who do not pass the test of minimal swimming proficiency must enroll in RPED 103 (Beginning Swimming) and must continue to enroll in this course until satisfactory completion.**

RPED 103 *Beginning Swimming*
A beginning swimming course designed for adults who are classified as non-swimmers or poor swimmers. Required of all cadets who do not pass the test of minimal swimming ability administered by the Department of Health and Physical Education.

RPED 105 *Intermediate Swimming and Emergency Water Safety*
Prerequisite: Swimming proficiency
A course consisting of instruction in the five basic swimming strokes, self-rescue, basic lifesaving techniques, and emergency water safety.

RPED 110 *Individualized Physical Education*
A course providing an individualized approach to health-related aspects of fitness, including, but not limited to, cardiovascular and muscular endurance, strength, flexibility, and body composition.

RPED 111 *Beginning Racquetball*
A course designed to provide instruction in the rules, skills, and strategies of playing racquetball.

RPED 113 *First Aid and CPR (ARC)*
A certification course of the American Red Cross for community first aid and cardiopulmonary resuscitation for adults, children, and infants.

RPED 114 *Lifeguarding (ARC)*
Prerequisites: Swimming proficiency
Corequisite: RPED 117
A certification course designed to teach the student the skills and knowledge required to properly assume the responsibilities of a lifeguard. Completion of this course may result in ARC lifeguarding certification.

RPED 115 *Water Safety Instruction (ARC)*
Prerequisites: Swimming proficiency
An instructor's course which may result in ARC certification for all levels of swimming instruction.

RPED 116 *Lifeguard Instructor (ARC)*
Prerequisites: RPED 114 or a current ARC lifeguard training certificate.
An instructor's course which may result in ARC certification for water safety and lifeguarding instruction.

RPED 117 *CPR for the Professional Rescuer*

A certification course of the American Red Cross for lifeguards, fire officers, police officers, and others with a duty to provide care. Includes adult, child, infant, two-person, and bag valve mask CPR.

RPED 118 *Community First Aid and Safety Instructor (ARC)*

Prerequisite: RPED 113 or current ARC Community First Aid and Safety certification.

An instructor's course which may result in ARC certification for teaching Standard First Aid, Adult CPR, Infant and Child CPR, or Community First Aid and Safety.

RPED 119 *Advanced Lifeguarding*

Prerequisite: RPED 114 or a current ARC Lifeguarding Instructor certificate.

A certification course designed to increase a lifeguard's expertise. Completion of this course may result in certification as a head lifeguard, waterfront lifeguard, and a waterpark lifeguard.

RPED 120 *Advanced Lifeguarding Instructor*

Prerequisite: RPED 116 or a current ARC Lifeguarding Instructor certificate.

An instructor's course which may result in ARC instructor certification for head lifeguard, waterfront lifeguard, and waterpark lifeguard courses.

RPED 122 *Archery*

A course which provides instruction in the basic knowledge and skills of target archery.

RPED 123 *Fencing*

A course which teaches basic knowledge, skill, and strategy of competitive foil fencing.

RPED 124 *Beginning Golf*

A course which teaches grip, stance, and swing development, as well as knowledge of rules and strategy of recreational and competitive golf.

RPED 125 *Handball*

An introduction to the rules, skills, and strategies required for singles, doubles, and "cut-throat" play.

RPED 126 *Judo*

A comprehensive coverage of the history, dojo etiquette, ukemi (break-fall), nagewaza (throwing), and ne-waza (grappling) techniques.

RPED 127 *Skin and Scuba Diving*

Prerequisite: Swimming proficiency

Basic techniques of using mask, snorkel, fins, and SCUBA equipment are taught. Material is presented to provide the student with information related to underwater physics and physiology. This course will prepare the student for confined water SCUBA work. This is not a certification course, but a prerequisite that may lead to eventual PADI certification.

RPED 128 *Skin and Scuba Diving II*

Prerequisite: RPED 127 or completion of PADI's five academic modules and approval of the instructor.

Confined water practice using SCUBA equipment. Completion of this course may result in a PADI Referral certificate for the open water certification dives.

RPED 129 *Beginning Tennis*

A course which emphasizes grip, stance, footwork, and basic movement patterns in the execution of serve and ground strokes and stresses knowledge of rules and etiquette.

RPED 130 *Weight Training*

A course which stresses proper lifting techniques as well as knowledge concerning the relationship between weight training and various sports programs.

RPED 134 *Jogging*

A course which presents jogging as a means of developing and maintaining a satisfactory level of cardiovascular fitness.

RPED 135 *Intermediate Tennis*

Prerequisite: RPED 129 or equivalent.

This course requires minimal skills (serve, forehand, and backhand ground strokes) and presents more advanced skills such as lob, smash, and net play in addition to advanced strategy in singles and doubles play.

RPED 136 *Sailing and Canoeing*

Prerequisite: Swimming proficiency

A course which includes basic knowledge and skill concerning small sailing craft and canoes.

RPED 137 *Beginning Kayaking*

A course designed to teach the basics of flat water kayaking for lakes and oceans.

RPED 140 *Sigma Delta Psi*

A course designed to prepare the student for thirteen sports/fitness skill tests required for membership in this national athletic fraternity.

RPED 141 *Modern Bicycling*

A study of modern multispeed bicycling, emphasizing the elements of care, maintenance, and safety and the techniques of physical preparation for racing and touring. *Students must have their own bicycles.*

RPED 142 *Orienteering*

A presentation of the skills for cross-country running with map and compass.

RPED 143 *Water Skiing*

A progressive presentation of water skiing skills from land drills through proper power boat handling to basic, intermediate, and advanced techniques with the double and single (slalom) equipment.

RPED 144 *Beginning Snow Skiing*

A comprehensive course which includes conditioning, dressing for the elements, equipment, chairlift and tow-rope safety, and skiing under various conditions.

RPED 145 *Intermediate Snow Skiing*

Prerequisite: RPED 144 or satisfactory performance of skiing fundamentals. An intermediate course which includes the application of the techniques involved in edge control and carving which will develop the individual's interest in moguls, racing, free style, ballet, and aerials.

RPED 147 *Beginning Horseback Riding*

A course designed to instruct techniques and equipment required to handle, halter, saddle, bridle, mount, ride, maneuver, dismount, and groom a horse. Walk, trot, figure-8, lunge, and canter skills are included.*

**Additional laboratory fees are charged to offset the costs of the special expenses involved with this course.*

RPED 148 *Beginning Yoga*

A course presenting the basic philosophy, positions, and breathing techniques of yoga. Emphasis is also placed on meditation and positive thinking as a means to reduce stress and to increase concentration.

RPED 149 *Tae Kwon Do*

An introductory course in the Martial Art of Tae Kwon Do. Knowledge, history, basic techniques, fundamental movements, required behaviors, discipline, and respect are emphasized.

## THE HEALTH AND PHYSICAL EDUCATION MAJOR

The purpose of the professional preparation program is to prepare the major for selected involvement within the broad field of health and physical education while maintaining reasonable flexibility for adaptation beyond the specialty area. This is accomplished through the offering of professional opportunities within two tracks, the teaching track and the professional track.

### The Teaching Track

**ADMISSIONS REQUIREMENTS FOR ALL TEACHER EDUCATION PROGRAMS ARE PRESENTED IN THE DEPARTMENT OF EDUCATION SECTION OF THIS CATALOG.**

The professional physical education teacher must have an understanding of the meaning and significance of movement, the growth and development of the individual, and the application of physical, biological, and behavioral sciences to the actual teaching/learning process. The curriculum for the prospective physical education teacher is designed to build progressively upon meaningful concepts and experiences acquired within other disciplines as well as those which are unique to the profession. In addition, competencies which have been identified with successful teaching methodology are an integral part of the curricular content.

Completion of the curricular requirements may result in certification by the South Carolina Department of Education to teach physical education in grades K-12. Additional certification in health education may be pursued through 12 hours of required courses (*) and 12 hours of electives selected from among the following offerings. Successful completion of the health section of the National Teacher's Exam (NTE) is also required.

| ***Required Courses** | | **Credit Hours** |
|---|---|---|
| BIOL 303 | Human Anatomy | 3 |
| BIOL 304 | Human Physiology | 3 |
| HLED 300 | First Aid/Emergency Care | 3 |
| HLED 406 | The School Health Program | 3 |
| | | 12 |

| **Approved Electives** | | **Credit Hours** |
|---|---|---|
| HLED 401 | Nutrition | 3 |
| HLED 402 | Drug and Substance Abuse | 3 |
| HLED 403 | Human Sexuality | 3 |
| HLED 404 | Public Health | 3 |
| HLED 408 | Health and Epidemiology | 3 |
| HLED 409 | Methods/Materials of Sex Education | 3 |
| HLED 410 | Consumer Health | 3 |

Successful completion of RPED 250 (Contemporary Health Foundations) *and* RPED 251 (Foundations of Fitness and Exercise) will be credited as one contemporary health problems course.

## The Professional Track

Alternatives to the teaching of physical education are available through two professional specialty areas: Health/Wellness and Sports Management/Administration.

*The Health and Wellness Option* is structured to prepare the student for professional opportunities in public and private health agencies, admission to physical/occupational therapy programs, and programming in America's $80 billion wellness industry.

The student in the Health/Wellness option must complete the professional track curriculum which includes six (6) of the following eighteen elective courses:

| | |
|---|---|
| Intro to Computer Applications | CSCI 115 |
| Genetics | BIOL 308 |
| Microbiology | BIOL 310 |
| General Biology II | BIOL 102 |
| Man and His Environment | BIOL 209 |
| Human Sexuality | HLED 403 |
| Public Health | HLED 404 |
| General Psychology | PSYC 201 |

| | |
|---|---|
| Introduction to Sociology | SOCI 201 |
| Statistical Methods | MATH 160 |
| Abnormal Psychology | PSYC 304 |
| Sports Psychology | PHED 408 |
| Theories of Personality | PSYC 306 |
| Applied Psychology | PSYC 404 |
| Health and Epidemiology | HLED 408 |
| Consumer Health | HLED 410 |
| Senior Research Project | PHED 420 |

*The Sports Management and Administration Option* is designed to prepare the student for a multitude of professional opportunities which include community and industrial recreation, resort sports programming, intramural/recreational sports and varsity program administration in schools, and management in the fitness industry.

The student in the Sports Management/Administration option must complete the professional curriculum and select six (6) of the following seventeen courses as approved electives.

| | |
|---|---|
| Principles of Macroeconomics | BADM 201 |
| Principles of Microeconomics | BADM 202 |
| Accounting I | BADM 211 |
| Accounting II | BADM 212 |
| Legal Environment of Business | BADM 305 |
| Marketing Principles | BADM 309 |
| Business Finance | BADM 321 |
| Principles of Management | BADM 325 |
| Intro to Computer Applications | CSCI 115 |
| General Psychology | PSYC 201 |
| Sports Psychology | PHED 408 |
| Intramural/Rec Sports | PHED 417 |
| Elementary Physical Ed | PHED 433 |
| Writing In The Professions | ENGL 411 |
| Journalism | ENGL 417 |
| Senior Research Project | PHED 420 |
| Administration of Interschool Athletics | PHED 431 |

## Minor in Health

Objectives:

The minor in health is designed to allow students to acquire knowledge and understanding in a discipline that is universal in application. Participation in the program will allow students to attain a level of expertise in an area that can complement their major and increase avenues of professional development. The minor program is *not* designed to meet requirements for South Carolina public school certification in health education.

*Competencies, Knowledge, or Skills to be Achieved:*

Students will have the opportunity to explore the role of health in an advanced society. Students will gain knowledge and skills which can advance their health status and the wellness of their family.

*Structure of the Minor:*

1. *Required Courses*

| | |
|---|---|
| HLED 300 | First Aid and Emergency Care |
| HLED 401 | Nutrition |
| HLED 403 | Human Sexuality |
| PSYC 202 | Developmental Psychology |

2. *Electives*

The student may choose any two of the following courses:

| | |
|---|---|
| BIOL 209 | Man and His Environment |
| BIOL 406 | Ecology |
| HLED 402 | Drug and Substance Abuse |
| HLED 404 | Public Health |
| HLED 408 | Epidemiology |
| HLED 410 | Consumer Health |
| PHED 406 | Directed Field Experience |
| PHED 419 | Physiology of Exercise |
| PHED 420 | Senior Research Project |
| PSYC 304 | Abnormal Psychology |
| PSYC 404 | Applied Psychology |

Students should confer with their faculty advisors concerning the desire to minor in health and file a declaration of intent with the Head of the Department of Health and Physical Education. The declaration is to include the projected course of study. The department head will approve the course of study and verify its completion to the Records Office.

Total Credit Hours Required—18

## Physical Education Course Descriptions

PHED 101 *Introduction to Physical Education* Three Credit Hours

A study of the philosophies, aims, objectives, and principles of physical education. Professional development and career opportunities are also emphasized.

PHED 102 *Learning Theory and Methodology* Three Credit Hours

A presentation of basic learning theory and methodology as related to the acquisition of gross motor skills.

Lecture: two hours; field experience: two hours

PHED 205 *Measurement and Evaluation* Three Credit Hours

A course which includes test selection and administration, analysis, and interpretation of data for various cognitive, affective, and psychomotor tests commonly associated with health and physical education.

For physical education majors or with department head approval only.

Lecture: three hours

PHED 220 *Methods of Teaching Gymnastics* One Credit Hour

A presentation of theoretical and biomechanical aspects of gymnastics apparatus and tumbling skills. Attention is given to teaching techniques, basic skills development, and evaluation.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 221 *Methods of Teaching Rhythmic Activities* One Credit Hour

A methodological treatment of fundamental rhythmics, creative rhythms, traditional dance steps, folk dance, square dance, social dance, and polyrhythmic activities.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 222 *Methods of Teaching Aquatics* One Credit Hour

A pedagogical treatment of aquatic methods including the basic instruction of swim strokes and water safety.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 223 *Methods of Teaching Outdoor Education* One Credit Hour

Methods of teaching outdoor education activities, including, but not limited to, canoeing, cycling, camping, backpacking, and sailing.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 224 *Basketball Theory* One Credit Hour

A study of defensive and offensive systems of team play, individual skills, rules, officiating responsibilities, and team strategy.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 225 *Baseball Theory* One Credit Hour

A study of the history, rules, development, equipment, theory, and strategy of baseball.

For physical education majors or with department head approval only.

PHED 226 *Football Theory* One Credit Hour

A comparative presentation of offensive and defensive systems of play with attention devoted to drills, rules, strategies, skills, training, and personnel placement.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 227 *Soccer Theory* One Credit Hour

The study of the history, rules, training techniques, strategies, and skills of soccer.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 228 *Methods of Teaching Lifetime Sports* One Credit Hour

The study of a variety of selected contemporary lifetime sports.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 229 *Adult Fitness Programming* One Credit Hour

The study of basic exercise physiology, fitness evaluation, exercise prescriptions, and fitness program planning.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 230 *Wrestling Theory* One Credit Hour

The study of wrestling skills, mechanical principles, training techniques, and strategies.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 231 *Track and Field Theory* One Credit Hour

The analysis of track and field events which includes developmental, mechanical, and technical components of study.

For physical education majors or with department head approval only.

Lecture: one hour

PHED 314 *Biomechanical Kinesiology* Three Credit Hours

Prerequisites or corequisites: BIOL 303, BIOL 304, BIOL 305, and BIOL 306

The anatomical and mechanical analysis of functional posture and motor performance for the purpose of improving teaching and coaching effectiveness.

Lecture: two hours; laboratory: two hours

PHED 402 *Care and Prevention of Athletic Injuries* Three Credit Hours

Prerequisites: BIOL 303 and BIOL 305

Discussion, demonstration, and application of the skills and procedures utilized in athletic training.

Lecture: two hours; laboratory: two hours

PHED 403 *Special Physical Education* Three Credit Hours

Identification of various physical, mental, and emotional anomalies with implications for physical education. Attention is given to procedures involved in "mainstreaming" the special student.

Lecture: two hours; laboratory: two hours

PHED 404 *Administration of Physical Education* Three Credit Hours

A study of administrative philosophy and procedures which relate to curriculum and program development, finance, budgets and purchasing, and the legal aspects of teaching and coaching.

Lecture: three hours

PHED 406 *Directed Field Experience* Three Credit Hours

Open as an elective to senior health and physical education majors only.

A controlled exposure to professional experiences in a selected area which may include, but not be limited to, athletic coaching, athletic training, physical therapy, intramurals, recreation, recreation therapy, and public health education.

Lecture: one hour; field experience: six hours

PHED 408 *Introduction to Sports Psychology* Three Credit Hours

Analysis and interpretation of current research in the areas of maturation and development, learning theory, perception, personality, motivation, and group dynamics which relate directly to physical education and competitive athletics.

Lecture: three hours

PHED 417 *Intramural and Recreation Programs* Three Credit Hours

A study of the history, philosophy, and practical and theoretical bases of intramural and recreational programs.

Lecture: three hours

PHED 419 *Physiology of Exercise* Four Credit Hours

Lecture: Three hours (formerly two) Laboratory: Two hours

Prerequisites: BIOL 303, BIOL 304, BIOL 305, and BIOL 306

An in-depth study of the effects of exercise upon the components of physical fitness, including, but not limited to, strength, muscular endurance, flexibility, and cardiovascular-respiratory endurance.

PHED 420 *Senior Research Project* Three Credit Hours

A research problem conducted as an independent study. The topic and procedure for this study must be approved by the department faculty.

PHED 421 *Senior Seminar* One Credit Hour

A seminar conducted for the purpose of reviewing subject matter from all courses in the health and physical education curriculum and which culminates in a comprehensive written and oral examination.

PHED 431 *Administration of Interschool Athletics* Three Credit Hours
A study of the policies and procedures involved in interschool athletic administration.
Lecture: three hours

PHED 433 *Elementary School Physical Education* Three Credit Hours
A study of the progressively graded program of activities for the elementary schools, grades K-6. Theoretical as well as practical material will be presented.
Lecture: two hours; field experience: twenty hours

PHED 499 *Internship in Teaching* Twelve Credit Hours
Observation and teaching in an approved school under the direction of a cooperating teacher and a college supervisor.

## Health Education Course Descriptions

The following block of courses represents an opportunity for the student to take health education courses as electives within various curricula. These courses may be applied toward teacher certification in health education (24 semester hours) or toward the Health/Wellness track electives (6 courses).

HLED 300 *First Aid and Emergency Care* Three Credit Hours
A comprehensive coverage of safety concepts and accident prevention as well as the presentation of specific topics such as the cursory examination, wounds, traumatic shock, asphyxia, cardiac arrest, burns, toxins, and bone, joint and muscle injuries.
Lecture: three hours

HLED 401 *Nutrition* Three Credit Hours
A detailed study of the primary nutrients essential to health with attention given to specific needs from infancy through adulthood. Current theories and practices related to physical and intellectual performances are also investigated. Contemporary topics are presented, such as degenerative diseases, food-borne diseases, fad dieting, food additives, and health foods.
Lecture: three hours

HLED 402 *Drug and Substance Abuse* Three Credit Hours
An indepth study of the characteristics of commonly abused drugs and substances and the reasons for their abuse.
Lecture: three hours

HLED 403 *Human Sexuality* Three Credit Hours

A comprehensive study of all facets of human sexuality.

Lecture: three hours

HLED 404 *Public Health* Three Credit Hours

An analysis of public health trends, services, funding, and organization of local, state, and federal agencies.

Lecture: three hours

HLED 405 *Health Problems in the Classroom* Three Credit Hours

A course designed to provide the elementary, middle, and high school classroom teacher with the knowledge to identify, manage, or refer health problems commonly encountered in the school environment. Available to physical education majors as an elective with the approval of the department head.

Lecture: three hours

HLED 406 *The School Health Program* Three Credit Hours

A study of the total school health program and the role of health and physical education within the program.

Lecture: three hours

HLED 407 *Methods and Materials in Health Education* Three Credit Hours

A course designed to prepare the potential health educator in the areas of curriculum design at all grade levels, teaching methods, teaching styles, and evaluation.

Lecture: three hours

HLED 408 *Health and Epidemiology* Three Credit Hours

A course designed to acquaint the potential health educator or public health worker with the science of epidemiology and the techniques used in the study of disease.

Lecture: three hours

HLED 409 *Methods and Materials of Sex Education* Three Credit Hours

A course designed to prepare the health educator in the promotion and teaching of family life education in the schools. The course will focus on promotion, planning, and implementation of programs at all grade levels.

Lecture: three hours

HLED 410 *Consumer Health* Three Credit Hours

A course designed to provide factual and scientifically based information about medical goods and services as well as development of consumer skills in the areas of decision-making, values clarification, assertiveness, bargaining, bidding, data collection, and data analysis.

Lecture: three hours

# Department of History

Department Head: W. Moore, (Interim)
Professors: Coussons, Nichols, J. Moore, White, Gordon, Tripp, W. Moore
Associate Professors: Barrett, Bishop, Grenier
Assistant Professors: Pilcher, Knapp

The Department of History endeavors to give students an acquaintance with, and an appreciation for, our historical heritage and seeks to enable them to see the relationship between causes and effects in the historical development of their own and other countries and of civilization at large. Furthermore, the study of history is intended to assist the student's development of critical thinking, including the analysis and evaluation of historical evidence and the ability to integrate and interpret such data. History has proven to be a useful preparation for careers in the business, legal, ministerial, military, and other public service professions, as well as a preparation for continuing study in graduate history programs. The Department offers the student majoring in history ample freedom in the selection of upper level courses within the department and, with 24 hours of general electives, among courses offered by other departments.

*From within the department,* students majoring in history are required to take the following courses: HIST 103-104 (History of Western Civilization); HIST 201-202 (Survey of American History); HIST 203 (Introduction to the Discipline History); two courses from Group I (European), two courses from Group II (American), one course from Group III (Latin American and Non-Western World), and one course from Group IV (Diplomatic/Military). In addition, students are required to take three additional courses as history electives.

*Group I. European.* HIST 321 (The Middle Ages), HIST 322 (Renaissance and Reformation), HIST 324 (The French Revolution and Napoleon), HIST 325 (Europe, 1815-1914), HIST 326 (Europe since 1914), HIST 327 (England to 1660), HIST 328 (England Since 1660), HIST 421 (The Ancient Greeks), HIST 422 (The Romans), HIST 423 (The Byzantine Empire), HIST 424 (History of Modern Russia), HIST 435 (Scotland since 1707), HIST 481 (Hitler and National Socialism), and HIST 491 (Special Topics in European History).

*Group II. American.* HIST 301 (Revolutionary America), HIST 303 (Jefferson and Nationalist Period), HIST 305 (America Comes of Age, 1865-1919), HIST 306 (The U.S. since 1919), HIST 402 (South Carolina History), HIST 403 (The American West), HIST 406 (The Old South), HIST 407 (The New South), HIST 473 (The Great Crusade: Americans during World War II), and HIST 492 (Special Topics in American History).

*Group III. Latin America and Non-Western World.* HIST 417 (The Non-Western World), HIST 425 (Islam and the Middle East), HIST 450 (Colonial Background to Latin America), and HIST 451 (Latin America), HIST 452 (National Mexico), HIST 462 (The History of Premodern China), HIST 463 (The History of Modern China), HIST 466 (The History of Japan), and HIST 493 (Special Topics in Latin American and Non-Western History).

*Group IV. Diplomatic/Military.* HIST 304 (Disunion and the War for Southern Independence), HIST 410 (U.S. Foreign Policy since World War II), HIST 483 (Great Captains), HIST 479 (Naval Warfare), HIST 487 (The Patterns of War to the Late Eighteenth Century), HIST 488 (The U.S. and the Patterns of War since the Late Eighteenth Century), HIST 489 (The Vietnam War), and HIST 494 (Special Topics in Diplomatic/Military History).

*From outside the department,* students majoring in history are required to take 12 semester hours of a modern language; PSCI 201 (American Politics and Government), which meets the social science core requirement as designated by the College; and nine hours of political science (PSCI prefix) in courses numbered at the 300-400 level. All history majors are required to take at least 12 semester hours of English, 16 semester hours of science (8 hours each from the same science), and 6 semester hours of mathematics. For further guidance, see the curriculum for history majors in the Courses of Study section of this catalog.

**Minor in History** (not open to history majors)

*Objectives:*

A minor in history, reflecting the structured and sequential offerings within the department, affords students who do not choose to major in history the opportunity to develop expertise within the discipline consistent with their interests and their plans beyond graduation. The minor is designed to give the non-history major an introduction to the basic skills of the historian and the depth of advanced study of the discipline offered within the department whether generally or specifically.

*Competencies, Knowledge, or Skills to be Achieved:*

Students completing the minor will have the beginning skills of the historian and advanced work within the discipline consistent with their interests. They will be experienced both in technique and knowledge and therefore be better prepared for their professional options following graduation.

*Structure of the Minor:*

1. While the student may design the minor in history either on the basis of the history major or to key it to one of the four groups of courses offered by the department, a required course in all cases is HIST 203 (Introduction to the Discipline of History).

2. The student must choose one of the groups below for the history minor. Except for world history, all courses by group may be found in this catalog under the major in history:

a. World History. A minimum of one course each from the following history groups (Groups I-IV): Europe, United States, Latin American/Non-Western World, and Diplomatic/Military.

b. European History (Group I). A minimum of four courses from the European history group.

c. United States History (Group II). (1) HIST 201/202 (Survey of American History). (2) At least two courses at the 300-level or above from the U.S. history group.

d. Latin American/Non-Western World (Group III). A minimum of four courses from the Latin American/Non-Western World group.

e. Diplomatic/Military (Group IV). A minimum of four courses from the Diplomatic/Military group.

Total Credit Hours required of all history minors: 15 hours beyond the College Core Requirements in History (HIST 103-104).

*Note:* For transcript purposes, the history minor, depending on the elective sequence chosen above, will be designated as one of the following: World History, European History, United States History, Latin American/Non-Western World History, or Diplomatic/Military History.

## History Course Descriptions

HIST 103 and HIST 104 *History of Western Civilization* Three Credit Hours Each Semester

A two-semester survey of the development of European civilization from ancient times to the present. Among the major topics examined during the first semester (to 1660) are Classical Greece, Republican Rome, Imperial Rome, the Christian Church, Feudalism, the Renaissance, the Protestant Reformation, and the Age of European Exploration. Major topics examined during the second semester (since 1660) include Absolutism, the Enlightenment, the French Revolution, the Industrial Revolution, Liberalism, Nationalism, Imperialism, Modernism, and Totalitarianism.

HIST 201 and HIST 202 *A Survey of American History* Three Credit Hours Each Semester

Required of all history majors.

Survey of American history from the period of discovery to the present; a brief treatment of the colonial period, followed by a more detailed study of such subjects as the causes of the Revolution, the framing of the Constitution, the development of political parties, the sectional conflict, economic progress and problems, and foreign relations; special emphasis placed on understanding the nature of American democracy and the role of the United States in world affairs from 1789 to the present.

HIST 203 *Introduction to the Discipline of History* Three Credit Hours

Required of all history majors and history minors.

An introduction to the history of the research and writing of history as a craft. According to the particular professor instructing, the course will address theories of history, computer simulation, the use of diaries, memoirs, and government documents, as well as the use of historic sites, architecture, photographs, paintings, cinema, and literary fiction as evidence in reconstructing and interpreting historical events.

HIST 301 *Revolutionary America* Three Credit Hours

The motives of colonization; the evolution of self-government; the extension of the frontier; economic, social, and religious life; imperial rivalries, and the origins, events, and results of the American Revolution.

HIST 303 *The Jeffersonian and Nationalist Period* Three Credit Hours

A study of American history, 1800-1850, with an emphasis on the clash of Federalist and Jeffersonian Principles; emerging political and cultural nationalism; the War of 1812; the influence of Jacksonian Democracy in the political, social, and economic life; growing sectionalism; and the Mexican War.

HIST 304 *Disunion and the War for Southern Independence* Three Credit Hours

The political, economic, diplomatic, and military history of the United States, 1850-1865, emphasizing the forces that tended to bind or disrupt the Union and including a detailed account of the war.

HIST 305 *America Comes of Age, 1865-1919* Three Credit Hours

Reconstruction, the last frontier, the advent of big business with its effects, the origins of American imperialism, the Spanish-American War, the Progressive movement, the First World War, and the Treaty of Versailles.

HIST 306 *The United States Since 1919* Three Credit Hours

The Decade of the Twenties, the Great Depression, the Second World War, the Cold War, the Post-Cold War Era; a study of national efforts to fulfill the American democratic vision during a century marked by wars, accelerating technological innovations, material progress, and cultural transition.

HIST 321 *The Middle Ages* Three Credit Hours

The nature of society and events in Western Europe from the 7th and 8th centuries A.D. until the decay of the medieval world in the fourteenth century. Topics include the rise of the Franks and the Papacy, the establishment of feudalism, the wars between the popes and the holy roman emperors, the Crusades, intellectual revival, establishment of town democracy, and rise of nation-states at the end of the period.

HIST 322 *Renaissance and Reformation* Three Credit Hours

The Renaissance as a European-wide movement emanating from the Italian peninsula; the crisis of the church medieval and the rise of the Renaissance papacy; Humanism, with special emphasis on the great painters, architects, and sculptors of the time; the Renaissance city-states and monarchies of France, England, Spain, and the Holy Roman Empire; and the religious upheavals of Protestantism, the Catholic Reformation, and civil and religious wars.

HIST 324 *The Era of the French Revolution and Napoleon* Three Credit Hours

A survey of the causes of the Revolution followed by an examination of the principal events of the period with stress on the major personalities, the ideologies and revolutionary mentality, the political and social aspirations of the lower social orders, the unstable nature of the various revolutionary governments, and the rise of Napoleon and his achievements.

HIST 325 *Europe, 1815-1914* Three Credit Hours

The course of European history from Napoleon's defeat at Waterloo to the outbreak of World War I. Emphasis is placed on political reaction and reform; the Industrial Revolution and its economic, social and political effects; the Darwinian revolution and its impact on Western thought about man and his origins; the rise of nation-states in Italy and Germany; overseas imperialism; and the factors that contributed to the outbreak of the First World War.

HIST 326 *Europe Since 1914* Three Credit Hours

A survey of the origins and impacts of two World Wars on the major European states, their political, social, and economic development, and their relative positions today.

HIST 327 *England to 1660* Three Credit Hours

A survey of English history from prehistoric times through the English civil war of the 17th century and its aftermath. Emphasis is placed on the development of Parliament, the monarchy, the legal system, and local government. The evolution of British society is traced from Celtic and Roman times through King Alfred, the Anglo-Saxons, the Normans, the Wars of the Roses, the Tudors, and the first Stuart monarchs. Special attention is paid to Celtic warfare, the Roman conquest, Anglo-Saxon warfare, the armored knights of Norman times, and the English legacy to Americans.

HIST 328 *England Since 1660* Three Credit Hours

A survey of English history from the Stuart Restoration to the present, including the Glorious Revolution of 1689, the reign of the Hanovarians, the development of England as an industrial power and leader in overseas expansion in the 18th and 19th centuries, its role in two world wars in the 20th century, its experience as a welfare state, and its decline as a great power.

HIST 402 *South Carolina History* Three Credit Hours

A survey of the political, economic, social, and intellectual development of South Carolina from its discovery to the present, with emphasis on the relation of the state to the South and to the nation.

HIST 403 *The American West* Three Credit Hours

A study of the settlement of the West and its influence on American life. Topics examined include mountain men and missionaries, Indians and Indian figures, the cowboy and the cult of Western heroes, patterns of frontier violence, homesteading, mining towns, railroad building. Emphasis is given to national traits, like individualism, associated with the frontier experience and to the influence of the West on American life to the present day.

HIST 406 *The Old South* Three Credit Hours

A survey of major issues and institutions in the history of the American South from the colonial period through the Civil War. Particular attention is given to the plantation, slavery, states rights, fundamentalist religion, the ethic of honor, and the origins and consequences of the Civil War. Among the questions addressed are what caused a Southern regional mentality to develop and how different was the South from the rest of the nation?

HIST 407 *The New South* Three Credit Hours

A survey of major issues and institutions in the history of the American South since the end of the Civil War. Particular attention is given to the Cult of the Lost Cause, the New South Movement, racial segregation, progressivism, religion, music, literature, the second reconstruction, and the emergence of the sunbelt South. Among the major questions addressed are why, and how much, did the South change after the Civil War and does a distinctive South still exist?

HIST 410 *American Foreign Policy Since World War II* Three Credit Hours

Diplomatic problems arising from the war, increased responsibilities, the United Nations, American-Soviet rivalry, the Cold War, world treaties and commitments, national security strategies, economic policies, and other military and non-military initiatives in international relations.

HIST 417 *History of The Non-Western World* Three Credit Hours

Origins and development of selected non-Western cultures, examining their historical and cultural values and customs as well as their social and political institutions. Emphasis is placed on the cultures of China, Japan, Southeast Asia, the Indian Subcontinent, the Arab and Islamic world, sub-Saharan Africa, and the Americas.

HIST 421 *The Ancient Greeks* Three Credit Hours

A detailed examination of ancient Greek political history and the ancient Greek contribution to politics, war, philosophy, literature, and art; the Archaic and the Classical ages; and the Hellenistic period to the Roman conquest.

HIST 422 *The Romans* Three Credit Hours

A survey of Roman history from Rome's origins as a Latin village through its conquest of Italy, defeat of Carthage and Greece, and the Roman empire to dominance over the Mediterranean world; the empire's gradual corruption, loss of political freedoms, the transition to an absolutist, Christian monarchy. Emphasis is placed on the personalities and values of the Romans and how these led to Rome's glories and failures.

HIST 423 *The Byzantine Empire* Three Credit Hours

The course begins with the turn of the Roman Empire to Christianity in the 4th century, then traces how the new religion changed the nature of the Empire. The course covers the conquests of the Germans over its western territories and the Muslims over its southern parts during the early Middle Ages. The fortunes of the remaining "Byzantine Empire" are followed through its revival, and then its decline with the Crusades and its final destruction by the Ottoman Turks.

HIST 424 *History of Modern Russia* Three Credit Hours

History of the development of tsarist absolutism under the Romanov dynasty and of the religious, social, and economic institutions of the tsarist state. Intensive treatment of the 1917 Revolution and the institutional development of the Soviet state to world power status.

HIST 425 *Islam and the Middle East* Three Credit Hours

A general survey of Islamic history from its beginnings to the present, covering the nature of the religion and society created by Mohammed, the conquest of lands that became Muslim, the politics and culture of the Muslim golden age, the Crusades and Ottoman conquests, and the emergence of modern Islamic countries and problems in the Middle East.

HIST 435 *Scotland Since 1707* Three Credit Hours

A survey of the political, social, cultural, and economic history of Scotland since union with England. Topics include Jacobitism, the clan system, the Highland clearances, the industrialization of the Lowlands, and Scottish nationalism. Special emphasis is placed on attempts to retain Scottish distinctiveness while integrating into the wider community of Great Britain.

HIST 450 *The Colonial Background to Latin America* Three Credit Hours

A detailed examination of the pre-Columbian and post-Columbian experiences in Latin America to 1810. Emphasis is placed on the varied melding of the indigenous, European, and African contributors and the roles they played within the framework of the Iberian empires in America. A cultural and institutional approach provides a necessary appreciation of the present-day complexities of this region.

HIST 451 *Modern Latin America* Three Credit Hours

Beginning with a brief introduction to the colonial ambient and the Latin American wars for independence, the course explores the development of the several Latin American nations since 1810. Emphasis is placed on the major nations of the region such as Mexico, Brazil, and Argentina, as well as to the Andean nations and the still-volatile Caribbean. The economic and strategic roles of these nations are addressed.

HIST 452 *National Mexico* Three Credit Hours

A survey of Mexico from 1810 to the present. Topics include Father Hidalgo and the Wars of Independence, *caudillos* such as Antonio López de Santa Anna, the Liberal Reform of Benito Juárez, General Pancho Villa and the Revolution of 1910, and the Zapatista Rebellion of 1994.

HIST 462 *The History of Premodern China* Three Credit Hours

The history of China from its beginnings to the eve of its clash with the West in the nineteenth century. The course examines the development of premodern China's political, social, and economic institutions, many of which lasted into the twentieth century. Special emphasis will be given to premodern religion, popular culture, and daily life.

HIST 463 *The History of Modern China* Three Credit Hours

The history of China's tumultuous entry into the modern world. The course examines China's struggle to adjust its traditions to the reality of Western dominance and the radical changes in Chinese society that this adjustment caused. Emphasis will be given to the failure of the 1911 Revolution, the rise and victory of the Communist Party, the Cultural Revolution, and the regime of Deng Xiaoping.

HIST 466 *The History of Japan* Three Credit Hours

An examination of Japan's history from its prehistoric origins to its postwar economic miracle. Topics such as the "Horse-rider Theory," Heian court life, samurai rule, Japanese "feudalism," Shintoism, Japanese Buddhism, the Meiji Reform, the prewar militarization, and the postwar transformation into an economic superpower will all receive special attention.

HIST 473 *The Great Crusade: Americans during the Second World War* Three Credit Hours

A study of the United States in World War II which focuses upon domestic society and the relationship of the changing culture to the postwar America of global commitments and consumption of consumer goods.

HIST 479 *History of Naval Warfare* Three Credit Hours

A history of warfare at sea from ancient times to the present with emphasis on the historical development of naval architecture, technology and organization; the evolution of naval tactics and strategy, and the influence of seapower upon world affairs.

HIST 481 *Hitler and National Socialism* Three Credit Hours

A survey of the Nazi movement from its late nineteenth century antecedents to its culmination in 1945. Special emphasis will be given to the life of Hitler and to areas of controversial interpretation. Among these are the alleged reactionary nature of National Socialism, the "legal" rise of the party to power, the statesmanship of Hitler, his sanity, and the Holocaust.

HIST 483 *Great Captains: Major Commanders from Ancient Times to the Present* Three Credit Hours

An analytical and interpretative study of the character, styles of command, and achievements of the more influential commanders in the history of warfare from Alexander the Great to Rommel. Particular attention is given to the contributions of these historical figures, to their role in the development of the concept of command and strategic formulation in the Western world, and to the relationship of military to political leadership.

HIST 487 *The Patterns of War from Ancient Times to the Late 18th Century* Three Credit Hours

The patterns of war from ancient times to the eve of the American Revolution with emphasis on change in the technological, organizational, and social-political nature of war.

HIST 488 *The United States and the Patterns of War Since the Late Eighteenth Century* Three Credit Hours

The study of the patterns of war from the late eighteenth century to the present, with emphasis on the impact of technology, social-political factors, and organization on the waging of war in general and especially on American military practice.

HIST 489 *History of the Vietnam War* Three Credit Hours

The history of the American war in Vietnam, including the foundations of French imperialism in Indochina; native resistance; the First Indochina War; American policy, intervention, and withdrawal; the impact on American domestic society; and the fall of the Western-oriented government of South Vietnam.

## Specialty Course Descriptions

These courses are intended to be offered on an occasional basis, according to student demand and staffing availability. In addition, those courses that suit a seminar or tutorial format will permit students to be exposed to modes of instruction and learning other than those emphasized in lecture-oriented classes.

HIST 490 *Research Project* Three Credit Hours

Prerequisite: Approval of department head and supervising professor.

An independent research project culminating in a formal paper. Research topic determined through consultation between student and supervising professor. Especially recommended for those students considering graduate or professional studies.

HIST 491 *Special Topics in European History* Three Credit Hours

Examples include the Crusades; the Scientific Revolution; the Age of Louis XIV; the Golden Age of the Hapsburgs, 1740-1914; the French Foreign Legion; the Russian Revolution as Portrayed in Literature and Film; the Development of the English Constitution; and Germany since 1945.

HIST 492 *Special Topics in American History* Three Credit Hours

Examples include African-American History, African-Americans in U.S. Military History, American Legal History, American Business History, American History as portrayed in photography and film, 20th Century American History as seen through Literature, the Roaring Twenties, the Depression and New Deal, and the U.S. from Korea to Vietnam.

HIST 493 *Special Topics in Latin American and Non-Western History* Three Credit Hours

Examples include Columbus and his World, Slavery in the Spanish Main, Portuguese Colonization of Brazil, History of the Ottoman Empire, and Twentieth Century Africa.

HIST 494 *Special Topics in Diplomatic/ Military History* Three Credit Hours

Examples include the Napoleonic Legacy in Warfare, the United States in World War I, the Cold War, Nuclear Weapons and Arms Control, Theories of Strategy and Policy, the French Foreign Legion and French Imperial Policy, the Panama Canal and the Balance of Power, the German Army since 1740, and the History of Intelligence and National Security.

HIST 495 *Special Topics in History* Three Credit Hours

Examples include Crime and Punishment through the Ages, Imperialism, Revolutions in the Western World, Science and Technology in the Western World, the History of Medicine, and Psycho-Sociological History.

HIST 496 *Seminar* Three Credit Hours

Subject to the approval of the department head, a seminar on some special topic or historical problem as proposed by faculty or history majors. Topics include Castro's Cuba, the Founding and Development of the State of Israel, Stalin's Russia, and the Presidency of Franklin D. Roosevelt.

HIST 497 *Tutorial* Three Credit Hours

Subject to the approval of the department head, the tutorial is designed to meet the needs or interests of one or a few students. Readings, tutorial sessions, papers, and/or tests will be assigned by the professor in consultation with individual students.

HIST 498 *Internship* Three Credit Hours

Prerequisite: permission of department head.

Internships with the South Carolina Historical Society and similar organizations are offered to combine academic training with the acquisition of skills in archival work, historic preservation, and other types of applied history.

# Department of Mathematics and Computer Science

Department Head: Comer
Professors: Metts, Comer, Cleaver, Greim
Associate Professors: Crabtree, Pages, Denig, Cohn, Durgun, Hoyle, Francel, Zahid, Hurd, Trautman, Deutz, Chen
Assistant Professor: Lipscomb

To meet the demands of a world in which mathematics is playing an increasingly important role, The Citadel requires of all students at least one year of mathematics. In the science and engineering majors, two or more years of mathematics must be completed.

This department offers three degree programs: the B.S. with a major in mathematics, the B.A. with a major in mathematics, and the B.S. with a major in computer science. Complete listings of the courses of study leading to these degrees are found in the Courses of Study section of this catalog.

## B.S. Mathematics Major

The B.S. program in mathematics is designed to prepare our students to pursue graduate work in pure or applied mathematics and to provide the background which will enable them to use mathematics in the behavioral sciences as well as in more technical areas. Students pursuing a B.S. degree must choose either the Applied Mathematics or Pure Mathematics Option.

The course of study leading to the B.S. with a major in mathematics includes 24 semester hours of general electives. The required courses are 4 semester hours of computer science (CSCI 201) and the following 31 semester hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 231, MATH 232, MATH 240, MATH 303, STAT 361, MATH 403, MATH 492. In addition, the student must select 18 hours of Approved (Mathematics) Electives from among the mathematics courses numbered at the 300 or 400 level. For students pursuing the Pure Mathematics Option, these 18 hours of Approved (Mathematics) Electives must include MATH 304 or MATH 404. For students pursuing the Applied Mathematics Option, these 18 hours must include MATH 343, MATH 344, MATH 381, and MATH 470.

## B.A. Mathematics Major

The B.A. program features a strong preparation in mathematics with an opportunity to explore another field in some depth. It is strongly recommended that students pursuing the B.A. degree choose a minor as well. Candidates in this program must take 4 semester hours of computer science (CSCI 201); 28 semester hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 231, MATH 232, MATH 240, MATH 303, MATH 470, MATH 492; 3 semester hours of statistics: STAT 361; and 6 semester hours of approved mathematics electives.

## B.S. Computer Science Major

The B.S. program in computer science offers the student a sound experience in computer software complemented by a broad core of courses in the sciences and liberal arts, a background in mathematics which has sufficient breadth and depth to enable the student to deal with scientific applications as well as the theoretical basis of computer science, and an exposure to computer hardware (microprocessors) through courses offered by the Department of Electrical Engineering, ELEC 311 (Digital Logic and Circuits), ELEC 333 (Digital Systems Engineering), and ELEC 428 (Digital Systems Design). Through electives, the student will have the opportunity to gain background in areas such as business administration and political science where the information processing aspects of computer science are readily applied. Upon completion of this course of study, students (depending on the selection of electives) will be qualified for careers as system analysts, system programmers, applications programmers for business or industry, or researchers. In addition, graduates will be well prepared to pursue advanced degrees in computer science or applied mathematics.

The course of study leading to the B.S. with a major in computer science includes 18 hours of electives; 17 hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 240, STAT 361; one Approved (Mathematics) Elective selected from among the mathematics courses offered at the 200 level or higher; 30 hours of required courses in computer science: CSCI 201, CSCI 202, CSCI 262, CSCI 315, CSCI 320, CSCI 355, CSCI 405, CSCI 492, ELEC 305, and ELEC 428; and 9 hours of Approved (Computer Science) Electives selected from among the computer science courses offered at the 300 or 400 level. The complete course of study is provided in the Courses of Study section of this catalog.

## Minor in Management Information Science

*Objectives:*

A minor in Management Information Science will provide students the opportunity to receive experience with computers and see applications in management and statistics.

*Competencies, Knowledge, or Skills to be Achieved:*

A student who completes this minor will have had the opportunity to develop programming skills useful in business, to design and manage databases, and to master quantitative techniques used in a managerial decision-making process.

*Structure of the Minor:*

1. Required courses: (9 credit hours)

| | |
|---|---|
| CSCI 208 | COBOL |
| CSCI 216 | Management Information Systems |
| CSCI 386 | Applied Operations Research |

2. Electives (6 credit hours)

Choose one from each group:

| | |
|---|---|
| CSCI 217 | Internet Services and Information Resources |
| ***or*** STAT 461 | Data Analysis |
| BADM 325 | Principles of Management |
| ***or*** BADM 417 | System Analysis and Design for Business |

Total Credit Hours Required — 15

## Minor in Computer Programming

*Objectives:*

A minor in computer programming will provide a student with the opportunity to develop the skills necessary for designing and understanding large programs.

*Competencies, Knowledge, or Skills to be Achieved:*

A student who completes this minor will receive experience with computer programming in a high-level structured language. A student will have the opportunity to develop a sound foundation in techniques for designing, testing, and debugging structured programs.

This minor is not approved for students majoring in Computer Science.

*Structure of the Minor:*

1. Required courses: (14 credit hours)

| | |
|---|---|
| CSCI 201 | Introduction to Computer Science I |
| CSCI 202 | Introduction to Computer Science II |
| CSCI 315 | Data Structures |
| MATH 206 | Discrete Structures* |

*Mathematics majors must substitute an additional CSCI elective.

2. Electives (3 credit hours)

A CSCI course numbered 300 or higher.

Total Credit Hours Required — 17

## Minor in Applied Mathematics

*Objectives:*

This minor is designed to allow a student not majoring in mathematics to learn techniques of applied mathematics and to be exposed to a variety of modeling techniques. Students are expected to have completed one of the calculus sequences MATH 106/107, MATH 131/132, or HONR 107/108 to be eligible.

*Competencies, Knowledge, or Skills to be Achieved:*

A student who completes this minor will have a sound foundation in techniques of linear algebra and differential equations and will have utilized these techniques in at least one area of application.

*Structure of the Minor:*

1. Required courses: (9 or 10 credit hours)
   MATH 232 or MATH 234
   MATH 240
   MATH 470
2. Electives (6 credit hours)
   Choose two from among: MATH 343, MATH 344, MATH 381, MATH 382, or STAT 361

Total Credit Hours Required — 15 or 16

## Minor in Applied Statistics

*Objectives:*

A minor in applied statistics will provide students the opportunity to obtain a sound background in practical statistical skills necessary for employment in business, industry, and government.

*Competencies, Knowledge, or Skills to be Achieved:*

A student who completes this minor will have had the opportunity to develop a variety of statistical tools for analyzing data. The student will make extensive use of statistical software packages and will have the opportunity to apply techniques of statistical analysis in at least one area of application.

*Structure of the Minor:*

1. Required courses: (9 credit hours)

| | |
|---|---|
| STAT 361 | Introduction to Probability and Statistics |
| STAT 366 | Applied Statistics |
| STAT 461 | Data Analysis |

2. Electives (6 credit hours)
   Choose one of these two sequences:
   PSCI 308 and PSCI 393
   PSYC 201 and PSYC 203

Total Credit Hours Required — 15

## Mathematics and Computer Science Laboratories

The mathematics laboratory provides personal tutorial assistance for students having difficulties with freshman and sophomore level mathematics course work. Assistance is provided during the normal working day and during evening study periods. This facility serves as a source of additional materials — worksheets, workbooks, texts, journals, etc. — which complement classroom work.

The computer laboratory housed in the department provides a network of DECstation 5000s which run Ultrix, a version of UNIX, and a windowing system, MOTIF. This facility provides access to a variety of high-level programming languages, advanced mathematical software, the campus-wide VAX network *citnet,* and the Internet.

## Mathematics Course Descriptions

MATH 105 *Finite Mathematics* Three Credit Hours
Prerequisites: Two years of high school algebra
An introduction to finite mathematics with an emphasis on applications and formulation of problems in mathematical language. Topics include matrices, linear programming, financial models, probability, and statistics. The course includes work using a computer software package.

MATH 106 *Applied Calculus I* Three Credit Hours
Prerequisite: Two years of high school algebra
An introduction to the calculus of polynomials, rational functions, exponential, and logarithmic functions with an emphasis on applications to business and the life and social sciences. *Students may not receive credit for both MATH 106 and MATH 131.*

MATH 107 *Applied Calculus II* Three Credit Hours
Prerequisite: MATH 106
Required for B.A. degree in chemistry and B.S. degree in biology.
A continuation of the calculus introduced in MATH 106. Topics include techniques of integration, applications of integrals, improper integrals, partial derivatives and applications, and a brief introduction to double integrals.

MATH 119 *College Algebra and Trigonometry* Four Credit Hours
A modern treatment of the essential topics of college algebra and trigonometry. The course involves work using a graphics calculator. Offered for students whose mathematics requirement begins with calculus and whose background has been determined by the Department of Mathematics and Computer Science to be inadequate. *Credit hours earned in MATH 119 may not be applied towards meeting the mathematics core requirement.*

MATH 131 *Analytic Geometry and Calculus I* Four Credit Hours
Prerequisite: One of MATH 119 with a grade of "C" or better, a satisfactory score on the placement exam, or approval of the department head.

Required for B.S. degrees in chemistry, computer science, civil and electrical engineering, education (mathematics), mathematics, and physics and for the B.A. degree in mathematics.

Limits, derivatives, applications of the derivative, antiderivatives and definite integrals.

Students who complete MATH 131 and change to a major which does not require MATH 132 must complete one additional MATH course. NOTE: Students may not receive credit for both MATH 106 and MATH 131.

MATH 132 *Analytic Geometry and Calculus II* Four Credit Hours

Prerequisite: MATH 131 with a grade of "C" or better or HONR 107 with a grade of "C" or better

Required for B.S. degrees in chemistry, computer science, civil and electrical engineering, education (mathematics), mathematics, and physics and for the B.A. degree in mathematics.

Applications of the integral, transcendental functions, techniques of integration, series and sequences of real numbers, Taylor series, and power series.

MATH 206 *Introduction to Discrete Structures* Three Credit Hours

Prerequisite: One semester of calculus

Required for B.S. degrees in computer science and mathematics and for the B.A. degree in mathematics.

Set algebra including relations and functions, propositional and predicate logic, combinatorics, graphs, and applications of these to various areas of computer science.

MATH 231 *Analytic Geometry and Calculus III* Four Credit Hours

Prerequisites: MATH 132 or HONR 108

Required for B.S. degree in chemistry, engineering, mathematics, and physics and for the B.A. degree in mathematics.

The analytical geometry of two and three dimensions, the differential and integral calculus of functions of two or more variables, and vector differential calculus.

MATH 232 *Differential Equations* Three Credit Hours

Prerequisite: MATH 107 and approval of department head, or MATH 132, or HONR 108

Required for B.S. degrees in chemistry and mathematics and for the B.A. degree in mathematics.

Differential equations of the first order and degree, linear differential equations of higher order, miscellaneous differential equations, series solutions of differential equations, and applications.

MATH 234 *Applied Engineering Mathematics I* Four Credit Hours

Prerequisite: MATH 132

Required of civil and electrical engineering and physics majors.

An integrated course in linear algebra and differential equations. Topics include differential equations of the first order and degree, linear differential equations of higher order, systems of differential equations, the Laplace transform, vector spaces, bases, linear transformations, systems of linear equations, algebra of matrices, and determinants.

MATH 240 *Linear Algebra* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

Required for B.S. degrees in computer science and mathematics and for the B.A. degree in mathematics.

Systems of linear equations, algebra of matrices, inverses, determinants, vector spaces with emphasis on Euclidean vector spaces, bases, subspaces, transformations, eigenvalues and eigenvectors, and quadratic forms.

MATH 303 and *Modern Algebra* Three Credit Hours
MATH 304 *I and II* Each Semester

Prerequisites: For MATH 303: MATH 206 and MATH 240. For MATH 304: MATH 303.

MATH 303 is required for B.S. degrees in mathematics and education (mathematics) and for the B.A. degree in mathematics.

MATH 304 is an Approved (Mathematics) Elective for B.S. mathematics students in the pure mathematics option.

A two-semester sequence in the algebraic structures which lie at the foundations of many areas of modern mathematics. Topics chosen from theory of groups, rings, integral domains, and fields, coding theory, Galois theory, modules, and Euclidean constructions.

MATH 305 *Modern Geometry* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

Special topics from axiomatic geometries. Topics include Euclidean geometry, projective geometry, non-Euclidean geometry, and metric projective geometry.

MATH 335 *Applied Engineering Mathematics II* Three Credit Hours

Prerequisite: MATH 231 and one of MATH 232 or MATH 234

Required for all electrical engineering and physics majors.

Advanced topics in differential equations and multi-dimensional calculus. Topics include power series solutions of differential equations, line and surface integrals, Fourier series, vector integral calculus, special functions, and an introduction to partial differential equations.

MATH 343 *Applied Numerical Methods I* Three Credit Hours

Prerequisites: MATH 240 or MATH 234 and a knowledge of a programming language

Required of BS mathematics students in applied mathematics option.

An introduction to numerical methods. Topics include floating-point computation, finding zeros of functions, direct methods for solving systems of linear equations, interpolation, and numerical differentiation and integration.

MATH 344 *Applied Numerical Methods II* Three Credit Hours

Prerequisite: MATH 343 and one of MATH 232 or MATH 234

Required of BS mathematics students in applied mathematics option.

A further study of numerical methods. Topics include approximation, numerical solutions of ordinary differential equations, iterative methods for solving systems of linear equations, eigenvalue problems, and error analysis.

MATH 381 *Deterministic Methods of Operations Research* Three Credit Hours

Prerequisites: Two semesters of calculus and one of MATH 240 or MATH 234

Required for B.S. mathematics students in applied mathematics option.

The theory and applications of deterministic models of operations research. Topics include linear programming and the simplex algorithm, transportation and assignment problems, game theory, graphs and network flows, dynamic programming, and sensitivity analysis.

MATH 382 *Probabilistic Methods of Operations Research* Three Credit Hours

Prerequisites: Two semesters of calculus and one semester of statistics

The theory and applications of probabilistic models of operations research. Topics include queuing models, birth and death processes, finite-state markov chains, inventory theory, forecasting, simulation, decision analysis, and reliability.

MATH 403 and MATH 404 *Introduction to Analysis I and II* Three Credit Hours Each Semester

Prerequisite: MATH 231

MATH 403 is required for B.S. degree in mathematics.

MATH 404 is an Approved (Mathematics) Elective for B.S. mathematics students in the pure mathematics option.

Sets, functions, properties of the ordered field of real numbers, topology of the reals, sequences and series, continuity, differentiation, integration, and sequences and series of functions.

MATH 405 *Mathematical Statistics* Three Credit Hours

Prerequisites: MATH 132 and STAT 361

Axioms of probability, combinatorial probability, random variables, distribution functions, law of large numbers, central limit theorem, estimation, maximum likelihood methods, hypothesis testing, confidence intervals, and non-parametric methods.

MATH 411 *Number Theory* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

The Euclidean algorithm, prime and composite integers, elementary Diophantine equations, Pythagorean triples, Euler's phi-functions, congruences, Euler-Fermat theorems, exponents and primitive roots, and quadratic residues.

MATH 412 *History of Mathematics* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

A survey of the concepts and methods of mathematics from the time of the ancients to the present. The course includes a research paper on some major mathematician or body of mathematics.

MATH 422 *Complex Variables* Three Credit Hours

Prerequisite: MATH 231

Topics from complex function theory: complex differentiation and integration, Cauchy theorem, complex series and uniform convergence, harmonic functions.

MATH 470 *Mathematical Models and Applications* Three Credit Hours

Prerequisite: MATH 232 or 234

Required for B.A. degree in mathematics and B.S. mathematics students in applied mathematics option.

An introduction to the theory and practice of building and analyzing mathematical models for real world situations encountered in the social, biological, and environmental sciences.

MATH 480 *Readings in Mathematics* Three Credit Hours

Prerequisite: Permission of the instructor

Directed reading on assigned topics in mathematics. The course includes weekly conferences with the instructor and a formal paper. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

MATH 490 *Topics in Mathematics* Three Credit Hours

Prerequisite: Permission of the instructor

Selected topics in mathematics. The offering of this course will depend upon the interest of the students, the availability of an instructor, and approval of the department head. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

MATH 492 *Senior Seminar in Mathematics* One Credit Hour

Required of all mathematics majors. Open only to seniors.

Important topics in mathematics will be studied and the results presented.

MATH 499 *Senior Research Project* Three Credit Hours

Prerequisite: exceptional ability and background and approval of department head

A research project with a required formal paper. Recommended for students planning graduate work. Approval for enrollment based on the acceptance of a written proposal by the instructor and approval of the department head.

## Statistics Course Descriptions

STAT 160 *Statistical Methods* Three Credit Hours

Required of all biology majors; open to others. Not open to Mathematics or Computer Science Majors.

Formerly MATH 160.

An elementary treatment of probability and statistical concepts. Topics include data collection, descriptive statistics, measures of central tendency and dispersion, normal and binomial distributions, hypothesis testing, correlation and linear regression. Emphasis will be placed on understanding statistical concepts, experimental design, and interpretation of statistical results. A statistical package will be introduced.

STAT 361 *Introduction to Probability and Statistics* Three Credit Hours

Prerequisites: MATH 131 or MATH 106

Required of all mathematics and computer science majors.

An introduction to probability and statistical concepts. Topics include frequency distributions, measures of central tendency and dispersion, probability rules, probability distributions, sampling distributions, hypothesis testing, analysis of variance, correlation, and regression. A statistical package will be introduced.

STAT 366 *Applied Statistics* Three Credit Hours

Prerequisite: STAT 361 or BADM 205

A course in applied statistics covering practical statistical methods. Topics include comparisons of populations, methods of testing the independence of two variables, statistical methods of verifying or rejecting distributional assumptions, analysis of variance, simple linear regression, and certain nonparametric procedures. Students will obtain experience with statistical packages.

STAT 461 *Data Analysis* Three Credit Hours

Prerequisite: Previous statistics course

An introduction to graphical and exploratory analysis of data with extensive use of familiar statistical packages such as MINITAB. Topics include analysis of variance, two-way designs with interaction, multiple regression models, and basic nonparametric procedures.

## Computer Science Course Descriptions

CSCI 110 *Microcomputer Applications* Three Credit Hours

Required for all business administration majors.

This course is intended for students having little or no computer experience.

An introduction to computer systems and computer applications is presented in an IBM environment. Available software packages in the areas of word processing, database management, spreadsheets, and communications are introduced with applications in management and social sciences.

Credit not allowed for both CSCI 110 and CSCI 115.

CSCI 115 *Introduction to Computer Applications* Three Credit Hours

The course is intended for students having little or no experience with computers. An introduction to the major components of a microcomputer system is presented in a Macintosh environment. The fundamentals of word processing, spreadsheets, macros, and production graphics are introduced with applications in finance and science.

Credit not allowed for both CSCI 110 and CSCI 115.

CSCI 201 *Introduction to Computer Science I* Four Credit Hours

Required of all mathematics and computer science majors.

No previous computer programming experience is needed for this course.

An introduction to problem solving and algorithm development using C++.

Topics include computer organization, operating systems, structured programming, and program modularization. Assignments involve designing, coding, debugging, and documenting computer programs.

Lecture: three hours; laboratory: two hours.

CSCI 202 *Introduction to Computer Science II* Four Credit Hours

Prerequisite: CSCI 201; prerequisite or corequisite MATH 206.

Required for B.S. degree in computer science.

A continuation of the material covered in CSCI 201. Emphasis is placed on the development of a disciplined approach to program development and the enhancement of problem solving skills. Topics include data abstraction, recursion, linked data structures, stacks and queues, and top-down development of programs.

Lecture: Three hours; laboratory: two hours.

CSCI 205 *Programming in C with Unix* Three Credit Hours

No previous computer programming experience is needed for this course.

An introduction to problem solving and algorithm development using C. Topics include computer organization, the Unix operating system, structured programming, and program modularization. Assignments involve designing, coding, debugging, and documenting computer programs.

CSCI 208 *Introduction to COBOL* Three Credit Hours

No previous computer programming experience is needed for this course.

The fundamentals of COBOL programming with emphasis on file manipulation. Assignments involve designing, writing, and debugging programs with application in business or other data processing environments.

CSCI 216 *Management Information System* Three Credit Hours

Prerequisite: CSCI 110 or approval of the instructor

Computer-oriented information systems. Program construction in dBASE with applications in the management and social sciences is presented in a microcomputer environment on the IBM computer. Topics include data organization and collection, file organization, sort and search techniques, and on-line information retrieval methods and processes.

The course is designed as a follow-up to CSCI 110.

CSCI 217 *Internet Services and Information Resources* Three Credit Hours

Prerequisites: CSCI 110 or approval of instructor

This course introduces the student to the Internet, its services and the basic utilities for finding, retrieving, sending, storing, requesting, and generating network information. Topics include electronic mail, telnet, ftp, listservs, newsgroups, bulletin boards, libraries, and how to use tools like Archie, Veronica, Gopher, WAIS, and the World Wide Web to locate resources.

CSCI 262 *Computer Organization and Programming* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for a B.S. degree in computer science.

An introduction to computer architecture and assembly language programming with an emphasis on the latter. Relationship of the conventional machine level of a modern computer system with its other layers. Topics are chosen from addressing; machine instructions; I/O; subroutines; parameters; recursion; stacks;

coroutines; exceptions; interrupts; number systems and arithmetic; and the physical, digital, and the microprogramming levels.

CSCI 315 *Data Structures* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for B.S. degree in computer science.

Formal specification of abstract data types, implementation of these and analysis of algorithms. Topics include list and set representation methods, trees and graphs. Data structures used include arrays, queues, binary trees, hash tables, priority queues, search trees, balanced trees.

CSCI 320 *Database Design and File Structures* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for B.S. degree in computer science.

An introduction to the logical and physical structures of computer database systems. Topics include data models, query languages, relational database design, database constraints, and file structure.

CSCI 355 *Programming Languages* Three Credit Hours

Prerequisite: CSCI 315 and CSCI 262

Required for B.S. degree in computer science.

Programming language concepts and constructs with emphasis on the run-time behavior of programs. Topics include imperative, functional, logic and object-oriented programming paradigms, language syntax and semantics, and global properties of programming languages including scope, parameter passing, storage allocation and the binding time of constituents.

CSCI 365 *Object Oriented Programming Using C++* Three Credit Hours

Prerequisite: CSCI 315

An introduction to the object oriented programming philosophy and a detailed coverage of programming in C++.

CSCI 386 *Applied Operations Research* Three Credit Hours

Prerequisites: One of CSCI 110 or CSCI 115, one semester of calculus, and one of STAT 160 or BADM 205

An introduction to the application of quantitative techniques to the managerial decision-making process. The major mathematical models associated with operations research are presented. Topics include linear programming, the transportation problem, network analysis, queuing theory, inventory theory, and forecasting.

The course is applications oriented, and the model building process is emphasized. Students use applications software to solve realistic problems.

CSCI 405 *Operating Systems and Computer Architecture* Three Credit Hours

Prerequisites: CSCI 315 and CSCI 262

Required for B.S. degree in computer science.

An introduction to the concepts of modern operating system design and the architectural features of modern computer systems and a study of the implementations of these components in actual operating systems. Topics include data structures and algorithms to support process control, concurrency, and scheduling; memory management, including virtual memory architectures; I/O and file management; and networks and distributed systems.

CSCI 412 *Principles of Compiler Design* Three Credit Hours

Prerequisite: CSCI 355

A study of the component operations of a compiler, including lexical analysis, syntax analysis, scope analysis, and code generation, and a discussion of related implementation issues. A significant part of the course will be a project to develop a compiler for a simplified programming language.

CSCI 420 *Software Engineering* Three Credit Hours

Prerequisite: CSCI 315

An introduction to current techniques used in large-scale software development. Topics include requirements analysis, functional specification, systems design, implementation testing, and maintenance.

The course includes the organization, management, and development of a large scale software group project.

CSCI 450 *Formal Languages and Automata* Three Credit Hours

Prerequisites: MATH 206 and CSCI 202

An introduction to analytical methods and techniques used in the study of computer science. Topics include languages and operations, finite automata and regular sets, context-free grammars, pushdown automata, Turing machines and the languages corresponding to them, other classes of languages (linearly bounded, context-sensitive), and the Chomsky hierarchy.

CSCI 455 *Artificial Intelligence Techniques* Three Credit Hours

Prerequisite: CSCI 355

A survey of artificial intelligence concepts. Topics include knowledge representation, search strategies, logical and probabilistic reasoning, learning, natural language understanding, expert systems, and computer vision.

LISP and PROLOG are used to illustrate implementation of the concepts.

CSCI 490 *Topics in Computer Science* Three Credit Hours

Prerequisite: Permission of the instructor

Selected topics in computer science. The offering of this course will depend upon the interest of the students, the availability of an instructor, and approval of the department head. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

CSCI 491 *Internship* Three Credit Hours

Prerequisite: Senior standing

Open to senior computer science majors with a CSCI GPA of at least 2.500.

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues involved in developing, implementing, and managing computing resources in a real-world setting. Interns will spend ten to twelve hours per week in an area business working alongside an experienced computing professional or as part of a development team.

CSCI 492 *Senior Seminar in Computer Science* One Credit Hour

Required of all computer science majors. Open only to seniors.

Important topics in computer science will be studied and the results presented.

CSCI 499 *Senior Research Project* Three Credit Hours

Prerequisite: Approval of department head

A research project with a required formal paper. Recommended for students planning graduate work. Enrollment based upon a written proposal accepted by the instructor and approved by the department head.

# Department of Military Science

Department Head: Col. William J. Macpherson, Jr.
Assistant Professors: Majors Chandler, Robertson and Koob and Captains Ellis, Hastings, and Carruthers.
Senior Instructors: SGM Moreno, MSG Boydstun, MSG Dumlao, SFC Lawson

The Army ROTC program of instruction at The Citadel is geared toward teaching “hands-on skills” that are required of the new second lieutenant in the active Army, Army Reserve, or Army National Guard. Instruction at all levels centers around leadership. The program includes instruction in basic combat techniques, physical training, weapons, general military subjects, tactics, and communication skills. Selected cadets also have the opportunity to attend the Army’s Airborne, Air Assault, Mountain Warfare, and the Northern Warfare Course, as well as to serve as “third lieutenants” with an active Army unit for two to four weeks in the Cadet Troop Leadership Training Progam. The Citadel also has one of the largest Simultaneous Membership Programs in the nation. This program is a volunteer officer training program which allows Army National Guard and Army Reserve enlisted members to also participate in the Advanced ROTC course leading to a commission in one of the Reserve Components. Over 50 cadets participate in these programs each year with a 98% graduation rate.

Military Science is a four-year program of instruction, divided into a two-year Basic Course and a two-year Advanced Course. The first year (Military Science I) addresses the role of the individual soldier through instruction and practical training in the areas of physical training, marksmanship, first aid, map reading, U.S. weapons, and leadership. The second year (Military Science II) builds upon the first, through the development of more advanced individual skills such as land navigation, basic individual combat techniques, and small unit tactics and leadership.

The first year of the Advanced Course (Military Science III) is primarily designed to prepare contracted cadets for their performance and evaluation at the five-week Advanced Camp, which takes place during the summer between their junior and senior years. The curriculum focuses on instruction and practical training exercises in advanced land navigation, individual military skills, the principles and techniques of squad and platoon operations, the principles of organizational leadership, communications, fire support, U.S. Army weapons systems, and physical fitness training. At the conclusion of the junior year, those cadets who have applied for and have been selected for contract will attend the

Advanced Camp at Fort Lewis, Washington. Camp is based upon performance-oriented training and continuous leadership potential evaluation. Each cadet's evaluation is a principal determinant in being chosen for Active Duty or Reserve-Forces Duty and the choice of Branch. Cadets interested in receiving a contract must complete Military Science Levels I and II, MLTY 402 or receive an exception to policy from The Commanding General, Cadet Command.

The final year of the Advanced Course (Military Science IV) consists of instruction in solving contemporary leadership problems, the principles of military justice, the techniques of military writing, the evolution of current tactics, precommissioning seminars, and a review of military professionalism and ethics. The beginning of the senior year is the final opportunity to seek a contract and pursue a commission.

After the sophomore year, a transfer into Army ROTC will be permitted only if the transferring student wishes to pursue an Army commission.

Cadets seeking a commission as Second Lieutenants in the United States Army are required to successfully complete selected Professional Military Educational courses in five areas of study: English, history, human behavior, computer literacy, and math. The Core Curriculum satisifies the PME requirement for English (written communications) and math. One three-hour course is required in each of the other areas of study listed above. Although courses in management and national security studies are not required, cadets are highly encouraged to take them. Cadets enrolling in military science are provided a consolidated list of all academic courses offered by The Citadel that satisfy the professional military education requirement.

## Army Course Descriptions

MLTY 101 *Introduction to the Army and Army Weapons* One Credit Hour

The first semester lays the foundation for the next four years of instruction. It concentrates on building a cadet's self-confidence on Army weapons, and on equipment. It begins with an explanation of ROTC and the organization of the U.S. Army. The remaining time trains each cadet on first aid skills, written communications, the customs and courtesies of the U.S. Army, and a physical fitness test.

MLTY 102 *Introduction to Leadership and Army Weapons* One Credit Hour

The cadet is taught the theory of leadership, concentrating on the traits of a leader and the principles of leadership. The second block of instruction provides the cadet with the opportunity to handle and operate U.S. Army weapons. Additionally, one block of instruction centers around introduction to map reading. The semester culminates with a physical fitness test.

MLTY 201 *Leadership, Military Skills, and First Aid* Two Credit Hours

The cadet is trained on basic military map reading, land navigation, first aid, military writing, and leadership. Leadership study builds on the first year and examines different leadership styles. Physical fitness is again tested.

MLTY 202 *Operations and Tactics, Professional Knowledge Subjects, and Radio Communication* Two Credit Hours

The second semester begins with basic individual combat techniques and squad offensive and defensive operations. Instruction is given on oral communication, and cadets present a briefing. Further instruction is given on professional knowledge subjects and radio communication. Cadets also receive instruction on the Army Training Program. The semester culminates with the physical fitness test.

MLTY 301 *Leadership Theory, Tactics, and Basic Military Skills* Three Credit Hours

The curriculum for the junior year is primarily designed to prepare cadets for their performance at Advanced Camp. In the first semester, the cadet receives additional instruction in leadership, nuclear, biological, and chemical warfare, land navigation, basic tactics, and common tasks. One 24-hour field training exercise, 8 1.5-hour labs, monthly physical fitness tests, and weekly PT round out the training for the contracted cadets.

MLTY 302 *Doctrine of Land Warfare, Squad and Platoon Tactics, and Advanced Military Skills* Two Credit Hours

The second semester concentrates on final preparation for Advanced Camp. The cadet learns advanced squad and platoon tactics, develops an appreciation for current operational doctrines, and learns advanced military skills. Cadets who have earned contracts and will attend Advanced Camp will participate in additional leadership training and evaluation, weekly physical training, three field exercises, and 14 1.5-hour labs.

MLTY 401 *Contemporary Military Subjects, Ethics, and Professional Military Development* Three Credit Hours

The main focus of the senior year is to prepare cadets for their first assignments as a second lieutenants. Cadets learn how to plan and conduct military training. They also receive instruction on the Army logistical system and precommissioning requirements. A highlight of this semester is a block of instruction examining the ethics and professionalism of the officer corps. Those cadets who successfully completed Advanced Camp will further their leadership development by acting as trainers and leadership evaluators for the MS 301 and

MS 302 contracted cadets.

MLTY 402 *Professional Military Development* Two Credit Hours

The cadet's final semester centers around military law and additional skills required as a professional officer. Each cadet prepares and presents several oral presentations. The capstone of the senior year is precommissioning activities, which represent the cadet's final preparation before being commissioned as an officer in the United States Army.

# Department of Modern Languages

Department Head: Staley
Associate Professors: Staley, Emory, McRae, Andrade, Gurganus, Del Mastro, Bahk
Assistant Professors: Toubiana, Skow-Obenaus

Knowledge of a foreign language is now recognized as an essential element of a liberal arts education, as well as a vital asset in a global society. The importance of being able to communicate effectively with the millions of non-English speakers in the areas of commerce, government, science, and the arts cannot be stated too strongly.

The sensitivity to other cultures which is gained through careful study of foreign languages and peoples is likewise of an immeasurable importance today.

While core curriculum foreign language courses stress the four skills—reading, writing, listening and speaking—emphasis is put on oral/aural proficiency and effective interpersonal communication. The culture of the people who speak the target foreign language is also an important aspect of each course.

The language minor (in French, German or Spanish) leads the student to some understanding of the field of study and to an enhanced degree of competence with its methods of inquiry.

The language major is designed to enable students to perfect their fluency in the language and to acquire an in-depth knowledge of the civilization and literature which are manifestations of that language.

The major is a flexible one and has been shown to be excellent preparation for students desirous of pursuing careers in many professions or of continuing their education in graduate, business, law and medical schools. Students who meet academic requirements may be elected to the following national honor societies: Pi Delta Phi (French), Delta Phi Alpha (German), or Sigma Delta Pi (Spanish).

### Plan of Undergraduate Major

Twenty-seven credit hours of course work are required in one language at the 300- and 400-levels. For all majors these required courses include 301 and 302.

In addition, LING 300 (Introduction to Linguistics) and either MLNG 410 or 420 are also required of all language majors, for a total of thirty-three credit hours minimum.

Note that students who, through previous academic study, are deemed qualified may bypass Elementary (101-102) and/or Intermediate (201-202) courses in their chosen language, provided that they pass the next higher level course with a C or better. Bypassed courses will be included on The Citadel transcript as if they had been completed at The Citadel on a Pass/Fail basis.

## Minors in French or German or Spanish

*Objectives:*

A minor in French or German or Spanish will lead students to a deeper understanding of the culture of the people who speak that language and, at the same time, will afford them the opportunity to approach the degree of fluency and linguistic sophistication in the language necessary to communicate effectively with native speakers. The requirements of the Core Curriculum, while they provide a critical and necessary beginning, cannot hope to furnish students with the degrees of comprehension, fluency, and linguistic proficiency necessary to allow them to communicate effectively or to compete in the international arena with native speakers.

*Competencies, Knowledge, or Skills to be Achieved:*

The student who completes this minor will develop aural comprehension and oral proficiency in the language which are not possible to impart to students through the intermediate level and knowledge of culture and literature which will lead to a deeper appreciation of people and institutions.

Clearly, a student may not both major and minor in the same language; however, a major in one language and a minor in another is not only acceptable but (in certain combinations) even desirable.

*Structure of the Minor (French, German)*

1. Required Courses
   a. 301 and 302 (in the chosen language)
   b. at least one 400-level course (in the chosen language)
2. Electives
   Two advanced courses [i.e., courses numbered 300 and above (excluding LING 300 and MLNG 410 and 420)]

*Structure of the Minor (Spanish)*

1. Required Courses
   a. SPAN 301, 302, 305
   b. at least one 400-level course in Spanish
2. Elective
   One advanced course in Spanish [i.e., a course numbered 300 and above (excluding LING 300 and MLNG 410 and 420)]

Total Credit Hours Required — 15 semester hours of course work in one language at the 300-level and above

## Credit for Study Abroad

The Citadel presently offers a summer program for French, German, and Spanish in countries where the respective language is spoken. Credit may be obtained for courses taken abroad during the summer or the regular school year. Such work must have the prior approval of the head of the Department of Modern Languages, from whom details of this option are available.

## Core Curriculum Language Requirement

Courses in *languages* must be taken consecutively. That is, a course numbered 101 precedes and is prerequisite to 102; 102 is prerequisite to 201; and 201 is prerequisite to 202.

Graduation requirements in languages may be satisfied only by appropriate sequences of courses in the same language. Thus, French 101-102 must be followed by French 201-202 (not German, or Spanish 201-202) and so forth.

## General Courses

MLNG 100 *English as a Second Language* Three Credit Hours

Intensive work in oral and written communication in English. Basic writing skills development. Course credit will not be applied to credit hours required for graduation, and the course may be repeated until a satisfactory grade has been achieved. Enrollment limited to non-native speakers of English. Must be taken Pass/Fail.

MLNG 410 *European Literary Movements, 12th Century to 1789* Three Credit Hours

An extensive, in-depth survey of influential literary movements on the Continent, beginning with the High Middle Ages and early Italian Renaissance, continuing through the late Renaissance, the Golden Age in Spain, the Classical Age, up to the end of the Age of Enlightenment. While the focus of the course will be on major writers and representative works of each period (e.g., *La Chanson de Roland*, Bocaccio, Cervantes, Racine, Rousseau, Goethe), the significant intercultural borrowings and literary and artistic cross-fertilization among the intelligentsia of France, Germany, Italy, and Spain will be studied and put in their proper sociological contexts. No prerequisite.

MLNG 420 *European Literary Movements, 1789-Present* Three Credit Hours

This course begins at the dawn of the Romantic movement on the Continent and continues through the important movements of Realism, Naturalism, Symbolism, Surrealism, and Existentialism. Significant works of writers such as Hugo, Flaubert, Zola, Galdós, Rilke, Mann, Proust, D'Annunzio, Pirandello, Sartre, and Hesse, among others, will be studied against the background of their times. No prerequisite.

LING 300 *Introduction to Linguistics* Three Credit Hours

Open to all students; required for language majors.

A survey of the history of languages and linguistics and a study of the components of human speech: phonetics, phonology, morphology; grammar, syntax, semantics; semiology, writing, literature. No prerequisite.

**Language and literature courses numbered 300 and above in a given language have, unless otherwise stated, 202 in that language as a prerequisite.**

## French Language and Literature Course Descriptions

FREN 101 *Elementary French Communication I* Three Credit Hours

Basic functional communication on daily activities and immediate environment in the present and past. Emphasis on understanding, speaking, reading, and writing simple French; pronunciation; and vocabulary expansion. Cross-cultural similarities and differences stressed through use of videocassettes. Course conducted primarily in French. *Language laboratory required.*

FREN 102 *Elementary French Communication II* Three Credit Hours

Prerequisite: FREN 101 or placement

Continued development of basic communication skills: understanding, speaking, reading, and writing in increasingly more complex situations, including pronouns, descriptions, and actions in the past and future, and conjectures. Cross-culture similarities and differences stressed through use of videocassettes. Course conducted primarily in French. *Language laboratory required.*

FREN 201 *Intermediate French Communication* Three Credit Hours

Prerequisite: FREN 102 or placement

Functional use of French in different sociocultural contexts. Extensive oral and written practice with vocabulary and structures vital to expressing increasingly complex ideas. Course conducted in French. *Language laboratory required.*

FREN 202 *French Reading, Conversation, and Composition* Three Credit Hours

Prerequisite: FREN 201 or placement

Systematic development of reading and writing skills through cultural and literary texts. Oral communication skills development through discussions of readings and of videomagazine from French television. Course conducted in French.

FREN 203 *Intermediate French Composition and Conversation* Three Credit Hours

Prerequisite: FREN 102 (or equivalent) and permission of instructor

An intensive, systematic study of grammar and development of speaking and writing skills through readings, discussions, and compositions. May be taken in lieu of FREN 201. Offered only during summer program in Europe.

FREN 204 *Intermediate French Culture* Three Credit Hours

Prerequisite: FREN 102 (or equivalent) and permission of instructor.

Participation in cultural activities (excursions, visits to museums, theatrical performances, movies, etc.) required. Weekly journal of cultural and cross-cultural experiences. May be taken in lieu of FREN 202. Offered only during summer program in Europe.

FREN 301 *Advanced French Conversation* Three Credit Hours

Development of skill and ease in speaking correct, idiomatic French at an advanced level. Audio and video cassettes used for aural comprehension. Pronunciation exercises. Required of all French majors and minors. Course not open to students with native-level proficiency.

FREN 302 *Advanced French Composition* Three Credit Hours

Detailed study, analysis, and practice of written French based upon selected literary texts. Study of grammar, syntax, and vocabulary as necessary to achieve coherent, idiomatic compositions related to the readings. Required of all French majors and minors.

FREN 303 *French Civilization* Three Credit Hours

A broad survey of French culture (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to World War I.

FREN 304 *Contemporary French and Francophone Civilization* Three Credit Hours

A study of all aspects of French civilization in the twentieth century (social and cultural mores and values, art, industry, and economy) in France and throughout the French-speaking world.

FREN 307 *Business French* Three Credit Hours

Prerequisite: FREN 202 or permission of instructor

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, transportation, and corporations in the French-speaking world.

FREN 390 *Special Topics in Contemporary French Culture* Three Credit Hours

Prerequisite: FREN 202 and permission of instructor

A survey of current trends in art, architecture, music, cuisine, film, and literature, as well as in popular culture, in France. Visits to museums, concerts, theater, etc. Weekly journal of cultural and cross-cultural experiences. Offered only during summer program in Europe.

FREN 391 *Special Topics in Contemporary French Usage* Three Credit Hours

A course designed to acquaint students with the French of today as a language in evolution; particular attention to current usage of slang, jargon, and neologisms. Offered only during summer program in Europe.

FREN 421 *French Literature of the Middle Ages and Renaissance* Three Credit Hours

A study of representative works composed in the Middle Ages and Renaissance in modern French translation.

FREN 422 *French Classicism and Enlightenment* Three Credit Hours

A study of the principal writers of the seventeenth and eighteenth centuries in France. Major figures: Molière, Corneille, Racine, Pascal, La Fontaine, La Bruyère, Voltaire, Diderot, Rousseau.

FREN 423 *French Literature of the Nineteenth Century* Three Credit Hours

A study of the works representative of Romanticism, Realism, Naturalism, and Symbolism, with special emphasis on developments in the novel and lyric poetry.

FREN 424 *French Literature of the Twentieth Century* Three Credit Hours

A study of the major writers and literary movements—Surrealism, Modernism, Existentialism, Theatre of the Absurd, Nouveau Roman—from the turn of the century to the present.

FREN 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

Investigation and analysis of the works of one notable French author or of some other literary, linguistic, or cultural topic. The significance of the topic studied to Francophone civilization and/or literature in general will be emphasized. This course may be repeated provided that the subtitle is not duplicated.

FREN 490 *Advanced Grammar, Syntax, and Translation* Three Credit Hours

Prerequisite: FREN 302 or permission of instructor

Development of linguistic skills necessary for fluent idiomatic writing in French, from colloquial to more sophisticated styles, including translation from English to French. Required of all French majors.

## German Language and Literature Course Descriptions

GERM 101 *Elementary German I* Three Credit Hours

Introduction to vocabulary, grammar, syntax, idiom, and culture. Development of skills critical to foreign-language mastery: listening, speaking, reading, writing, and viewing. Course conducted primarily in German. Practice with tapes required.

GERM 102 *Elementary German II* Three Credit Hours

Prerequisite: GERM 101 or placement

Progress in vocabulary, grammar, syntax, and idiom. Increased emphasis on student communication. Course conducted primarily in German. Practice with tapes required.

GERM 201 *Intermediate German I* Three Credit Hours

Prerequisite: GERM 102 or placement.

Completion of basic grammar and syntax. Increased emphasis on reading, idiomatic usage. Course conducted in German. Practice with tapes required.

GERM 202 *Intermediate German II* Three Credit Hours

Prerequisite: GERM 201 or placement

Expansion and fine tuning of grammar. Films and literary texts serve as basis for discussion and substantial composition. Course conducted in German. Upon successful completion of the elementary and intermediate courses, students will be functional in a German-speaking country (i.e.,they will be able to converse socially, read newspapers and magazines, enjoy a movie, order meals, and shop).

GERM 203 and *Intermediate German I Abroad* Three Credit Hours
GERM 204 *Intermediate German II Abroad* Each Semester

Prerequisite: GERM 102 (or equivalent) and permission of instructor.

Taken in lieu of GERM 201 and 202. Intensive study of grammar, development of communicative skills while in residence in Germany, Austria, or Switzerland. Offered only as a component of summer program in Europe.

GERM 301 *Advanced German Conversation* Three Credit Hours

Prerequisite: GERM 202/204 with a grade of "C" or better or permission of the department head

Required of all German majors and minors. Not open to students with native-level proficiency. Expansion and practice of communicative skills in situational contexts from colloquial to formal. Extensive use of sound and video recordings. Student interviews and presentations.

GERM 302 *Advanced German Composition* Three Credit Hours

Prerequisite: GERM 202/204 with grade of "C" or better or permission of department head

Required of all German majors and minors. Practice in formal writing: reviews, essays, correspondence. Study of styles of writing in exemplary texts. Practical experience with translation.

GERM 303 *German Civilization and Culture* Three Credit Hours

Survey of civilization and culture up to 1945, with emphasis on values, thought, institutions, and art. Films, slides, recordings, field trips.

GERM 304 *Postwar German Society and Culture* Three Credit Hours

Study of society and culture since 1945, focusing on political division and reunification, economy, and art (particularly New German Cinema).

GERM 307 *Business German* Three Credit Hours

Serves as a business elective. Introduction to the language of economics, corporations, commerce, and banking. Practical experience with business translation and correspondence. Preparation for the *Prüfung Wirtschaftsdeutsch International.*

GERM 390 *Special Topics in Language and Literature* Three Credit Hours

Prerequisite: GERM 202/204 and permission of instructor

Study of language and literature while in residence in Germany, Austria, or Switzerland. Emphasis on current usage in speech and print. Discussion and composition based on activities and readings. Offered only as a component of summer program in Europe.

GERM 391 *Special Topics in Landeskunde* Three Credit Hours

Prerequisite: GERM 202/204 and permission of instructor.

Study of society and culture while in residence in Germany, Austria, or Switzerland. Emphasis on interaction with host community. Theater, concerts, films, excursions, and museum visits. Special projects tailored to student need and interest. Offered only as a component of summer program in Europe.

GERM 421 *German Literature up to the Reformation* Three Credit Hours

Survey of significant authors, works, genres, and movements from the earliest monastic texts through Luther's age, examined in their social and cultural context.

GERM 422 *German Literature from the Baroque to Classicism* Three Credit Hours

Survey of significant authors, works, genres, and movements from ca. 1500 to 1800, with emphasis on the Englightenment, *Sturm und Drang,* and classicism.

GERM 423 *German Literature of the Nineteenth Century* Three Credit Hours

Survey of significant authors, works, genres, and movements, with emphasis on romanticism, *Biedermeier, Junges Deutschland*, poetic realism, and naturalism.

GERM 424 *German Literature of the Twentieth Century* Three Credit Hours

Study of select authors (e.g., Schnitzler, Thomas Mann, and Brecht) from the *Jahrhundertwende* to the present.

GERM 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

Study of a single author or select topic in philology or culture. Students may register for this course more than once if the topic has changed.

## Spanish Language and Literature Course Description

SPAN 101 *Elementary Spanish Communication I* Three Credit Hours

Emphasis on practical, oral communication. Basic elements of speaking, listening, reading, and writing. Initial presentation of Hispanic culture. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 102 *Elementary Spanish Communication II* Three Credit Hours

Prerequisite: SPAN 101 or placement

Further emphasis on oral communication. A continuation of speaking, listening, reading, and writing skills and study of Hispanic culture. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 201 *Intermediate Spanish Communication* Three Credit Hours

Prerequisite: SPAN 102 or placement

Stress on oral communication. A continuation of speaking, listening, reading, and writing skills and study of Hispanic culture. Completion of the verb system. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 202 *Spanish Conversation, Reading, and Composition* Three Credit Hours

Prerequisite: SPAN 201 or placement

Extensive oral and written communication based on readings and videos of Hispanic literature and culture. Course conducted primarily in Spanish.

SPAN 203 *Intermediate Spanish Composition and Conversation* Three Credit Hours

Prerequisite: SPAN 102 (or equivalent) and permission of professor

Intensive course in oral and written Spanish; to be taken in lieu of SPAN 201. Offered only during summer program in Europe.

SPAN 204 *Intermediate Spanish Culture* Three Credit Hours

Prerequisite: SPAN 102 (or equivalent) and permission of instructor

Participation in cultural activities (excursions, visits to museums, theatrical performances, bullfights, etc.) required. Weekly journal of cultural and cross-cultural experiences. Taken in lieu of SPAN 202. Offered only during summer program in Europe

SPAN 301 *Advanced Spanish Conversaton* Three Credit Hours

Conversational skills are developed through frequent discussions and group related activities, with an emphasis on oral proficiency. These skills will be further refined through frequent writing activities. Course conducted in Spanish. Not open to students with native-level proficiency, but required of all other Spanish majors and minors.

SPAN 302 *Advanced Spanish Composition* Three Credit Hours

An intense and complete overview of Spanish grammar including a review of all tenses and a thorough analysis of the subjunctive. These elements will be emphasized through frequent writing exercises, with the ultimate goal of producing grammatically correct Spanish. Course conducted in Spanish. Required of all Spanish majors and minors.

SPAN 303 *Readings in Spanish Civilization* Three Credit Hours

A broad survey of the culture of Spain (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to the present. Extensive use of audiovisual materials and occasional field trips.

SPAN 304 *Readings in Spanish American Civilization* Three Credit Hours

A general survey of the culture of Spanish America from pre-Columbian times to the present (architecture, painting, sculpture, music, cuisine, etc., as well as social and political developments). Extensive use of audiovisual materials, occasional field trips.

SPAN 305 *Introduction to the Study of Hispanic Literature* Three Credit Hours

Prerequisites: Completion of Spanish 202 or 204 or permission of the instructor.

A preparatory course for students intending to pursue studies in Hispanic literature. Selected readings will provide the basis for stylistic and textual analysis and understanding of the structure of literary works. The historical development of genres and the technical vocabulary necessary for critical analysis will be included. Required of all Spanish majors and minors.

SPAN 307 *Business Spanish* Three Credit Hours

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, and corporations in Spain and Spanish America.

SPAN 310 *Survey of Spanish Peninsular Literature* Three Credit Hours

A broad survey of literature in Spain from the premedieval period through major movements and representative authors to contemporary Spanish letters.

SPAN 320 *Survey of Spanish American Literature* Three Credit Hours

A broad survey of major works of Spanish America from the pre-Columbian period through major movements and representative authors to contemporary literature.

SPAN 390 *Special Topics in Contemporary Spanish Culture* Three Credit Hours

Prerequisite: SPAN 202 and permission of instructor

A survey of trends in art, architecture, music, cuisine, film, and literature, as well as in popular culture, in Spain. Visits to museums, concerts, theater, bullfights, etc. Weekly journal of cultural and cross-cultural experiences. Offered only during summer program in Europe.

SPAN 391 *Special Topics in Contemporary Spanish Usage* Three Credit Hours

Prerequisite: SPAN 202 and permission of instructor

A course designed to acquaint students with the Spanish of today as a language in evolution; particular attention to current usage of slang, jargon, and neologisms. Offered only during summer program in Europe.

SPAN 420 *Spanish Literature of the Middle Ages and Renaissance* Three Credit Hours

The history and interpretation of the first works in the Spanish tradition. The literary history of the period will be surveyed and illustrated with selected texts.

SPAN 421 *The Golden Age of Spanish Literature* Three Credit Hours

A study of the theatre, poetry, and novel of the age of Lope de Vega, Calderón de la Barca, and Miguel de Cervantes, including consideration of the Mystics and the *auto sacramental.*

SPAN 423 *Eighteenth & Nineteenth Century Literature of Spain* Three Credit Hours

A survey of major literary trends from Neoclassicism to the Generation of ‘98 with consideration of authors such as Moratín, El Duque de Rivas, Bécquer, Larra, Bazán, Galdós, and Unamuno. Corresponding Spanish history will be presented as part of textual interpretation.

SPAN 424 *Twentieth Century Literature of Spain* Three Credit Hours

Literary trends and authors since the turn of the century. A survey of the avant-garde movements and post-civil war writers with consideration of such authors as Ortega y Gasset, Larrea, Lorca, Aleixandre, Celaya, Laforet and Cela.

SPAN 425 *Contemporary Spanish American Fiction* Three Credit Hours

In-depth study of the major works of Spanish American fiction by the most important twentieth-century writers. Consideration will be given to Borges, Cortázar, Rulfo, Fuentes, and García Márquez.

SPAN 426 *Contemporary Spanish American Poetry* Three Credit Hours

A study of selected Spanish American poets from Modernism to the contemporary period. The course will consider authors such as Dario, Mistral, Vallejo, Neruda, and Octavio Paz.

SPAN 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

A comprehensive study and interpretation of a major author, work, period, movement—or combination thereof—from Spain or Spanish America. This course may be repeated provided that the subtitle is not duplicated.

## Directed Individual Study

Directed Individual Study courses enable students with special interests, suitable preparation, and high academic standing to receive instruction and guidance in selected subjects which are not otherwise treated in the department's regularly scheduled courses of instruction. Directed Individual Study courses may not be repeated and are open only to juniors and seniors with the assent of the instructor and the permission of the department head.

FREN 341 and FREN 342 *French Language and Literature* (junior year) Three Credit Hours Each Semester

FREN 441 and FREN 442 *French Language and Literature* (senior year) Three Credit Hours Each Semester

GERM 341 and GERM 342 *German Language and Literature* (junior year) Three Credit Hours Each Semester

GERM 441 and GERM 442 *German Language and Literature* (senior year) Three Credit Hours Each Semester

SPAN 341 and SPAN 342 *Spanish Language and Literature* (junior year) Three Credit Hours Each Semester

SPAN 441 and SPAN 442 *Spanish Langauge and Literature* (senior year) Three Credit Hours Each Semester

# Department
# of
# Naval Science

Department Head: Maloney
Professor: Maloney
Associate Professor: Watson
Assistant Professors: Tesch, Thomas, Smith, Brown, Beck, Grant, Crawford, Cole

The Department of Naval Science course of instruction is designed to provide students with the basic professional knowledge and leadership skills needed to become Navy and Marine Corps officers. In the initial two years all students receive an orientation to the various branches of the Navy and Marine Corps, followed by courses in basic naval engineering, weapon systems, leadership, and an overview of seapower.

Students may receive their final two years of instruction in either Navy or Marine Corps courses. Naval vocation students study naval engineering, combat systems, seamanship and navigation; Marine option students study the historical development of warfare and amphibious operations. Both options conclude with practical leadership training designed as final preparation for assuming the responsibilities of a junior officer in the Navy or Marine Corps. After the sophomore year, a transfer into Naval ROTC will be permitted only if the transferring student wishes to pursue a Navy or Marine commission.

Visits to Navy and Marine Corps facilities are provided to complement classroom instruction.

## Sequence of Naval Science Courses

Fourth Class Year
- All Naval cadets
  - NAVL 101 Introduction to Naval Science
  - NAVL 102 Seapower and Maritime Affairs

Third Class Year
- All Naval cadets
  - NAVL 201 Naval Leadership and Management I
  - NAVL 202 Naval Ships Systems I (Weapons)

Second Class Year
- Candidates for U. S. Navy commissions
  - NAVL 301 Navigation
  - NAVL 302 Naval Operations

Candidates for U.S. Marine Corps commissions
NAVL 303 Evolution of Warfare I
NAVL 304 Evolution of Warfare II

First Class Year
Candidates for U.S. Navy commissions
NAVL 401 Naval Ship Systems II (Engineering)
NAVL 402 Naval Leadership and Ethics

Candidates for U.S. Marine Corps commission
NAVL 403 Amphibious Warfare
NAVL 402 Naval Leadership and Ethics

## Naval Science Course Descriptions

NAVL 101 *Introduction to Naval Science* One Credit Hour

This course provides the student with the basic understanding of the mission, organization, regulations, and broad warfare components of both the Navy and Marine Corps. Included is an overview of officer and enlisted rank and rating structures, training and education, promotion and advancement, courtesy and customs, discipline, leadership, ships' nomenclature, career opportunities in various warfare communities, and the challenges facing today's Navy and Marine Corps officers. (Navy and Marine faculty)

NAVL 102 *Seapower and Maritime Affairs* One Credit Hour

This course provides the student with a basic knowledge of seapower and maritime affairs. It is a study of the U.S. Navy from its inception during the Revolutionary War to the modern fleets of today. Chronological periods are broken down and discussed based on the following common themes: foreign policy, strategy, tactics, technological advances, interservice relationships, leadership, and Anglo-American relations. (Navy and Marine faculty)

NAVL 201 *Naval Leadership and Management I* Two Credit Hours

This course provides the student with a basic understanding of the fundamental concepts and principles of naval leadership and management. Theoretical aspects of the management functions and processes are examined, and their applications to the naval profession are discussed. In addition, motivation and motivational theories, counseling techniques, and effective communicative skills are studied and applied to naval leadership and management roles. This course is taught using lectures, experimental exercises, case studies, self-study exercises, and role-playing exercises. The goal of this course is to provide students with the fundamental concepts, principles, and sources of information necessary to establish a sound basis for their initial performance and future growth as a junior officer.

This course also provides students with the values and motivation which prepare them for service with the sense of honor and integrity required of a commissioned naval officer. (Navy faculty)

NAVL 202 *Naval Ship Systems I (Weapons)* Two Credit Hours

This course provides the student with a basic understanding of the theory and applicable principles relating to the operation of naval weapons systems. The topics include details of radar systems, and fire-control systems, including capabilities and limitations; methods of target acquisition; identification and tracking of targets; detect, track, and engage sequence; basics of naval ordnance; principles of electronic components, computer functions, integrated fleet capabilities, and sound energy. (Navy faculty)

NAVL 301 *Navigation* Three Credit Hours

This course provides the student with a working knowledge of the theory and practice of piloting and celestial navigation. Includes radar navigation, lines of position, fixes, complete site reduction by the Nautical Almanac, and a brief introduction to celestial and electronic navigation systems. Practice applications are stressed in weekly exercises. (Navy faculty)

NAVL 302 *Naval Operations* Three Credit Hours

Prerequisite: NAVL 301

This course provides the student with a detailed survey of the Rules of the Nautical Road and the theory and use of maneuvering boards for solution of relative motion problems. Also introduced are various other topics, including weather, shiphandling, and naval communications. (Navy faculty)

NAVL 303 *Evolution of Warfare I* Three Credit Hours

This course provides the student with a general knowledge of the concepts and art of warfare along with its evolution from the beginning of recorded history to the present. Included are the considerations of the influence that leadership, political, economic, sociological, and technological factors, along with different forms of leadership, have had on warfare and the theoretical principles behind modern strategy and tactics. (Marine faculty)

NAVL 304 *Evolution of Warfare II* Three Credit Hours

Prerequisite: NAVL 303

This course enables the student to acquire a working knowledge of the more practical aspects of warfare and the United States Marine Corps. The general principles of warfare addressed in NAVL 303 are considered as they relate to the small unit level. Tactical aspects of offensive combat are examined in detail. The student is given the opportunity to master skills required of the small unit leader—tactics and land navigation. Physical training is included to prepare students for summer training at Officer Candidate School, Quantico, Virginia. (Marine faculty)

NAVL 401 *Naval Ships Systems II (Engineering)* Two Credit Hours

This course is a detailed study of ship characteristics and types including ship design, hydrodynamic forces, stability, compartmentation, propulsion, electrical and auxiliary systems, interior communications, ship control, and damage control. Included are basic concepts of the theory and design of steam, gas turbine, diesel, and nuclear propulsion. (Navy faculty)

NAVL 402 *Naval Leadership and Ethics* Two Credit Hours

This course provides the capstone for all major areas of naval leadership immediately prior to commissioning. It provides students with guidelines for assuming the duties and responsibilities of junior Navy or Marine Corps officer during their initial tour of duty following graduation and commissioning. This course familiarizes students with the concepts and details of personnel management, material management, administration, training, counselling, staff relationships, and military justice. Also, this course emphasizes the official requirements involved with being a Naval officer and explores critical decision-making skills through various case studies. This is the final course in the Naval ROTC curriculum, and it synthesizes the managerial and professional competencies developed by the students in previous summer military training and naval science courses. (Navy and Marine faculty)

NAVL 403 *Amphibious Warfare* Two Credit Hours

This course provides the student a comprehensive understanding of the development of amphibious warfare and validates its effectiveness in today's world. Divided into four parts, this course begins by examining the historical development of amphibious warfare and then examines its different forms as provided by foreign militaries. Students are then exposed to the current capability and doctrine of the U.S. Marine Corps and conclude the course by evaluating the future direction of amphibious warfare. This course establishes the theoretical foundation of the tactics, techniques, and procedures that the students will be taught at the Basic School in Quantico, Virginia, after their commissioning as Marine Second Lieutenants. (Marine faculty)

# Department of Physics

Department Head: Rembiesa
Professors: Berlinghieri, Hurren, Adelman, Rembiesa
Associate Professors: Briggs, Hilleke

Physics is the fundamental physical science, the foundation upon which all other physical sciences are constructed. It is a vast and comprehensive discipline which studies the entire realm of nature from the most minute particles, distances, and times imaginable to the most massive stars, the outer limits of the universe, and the eons of duration. It is particularly concerned with those aspects of nature which can be formulated in terms of principles and laws reduced to their essence and expressed in an elegant and concise mathematical form.

The Department of Physics at The Citadel provides a comprehensive curriculum leading to a Bachelor of Science degree in Physics as well as undergraduate education in basic physics designed to meet the needs of three different groups: 1) physical sciences/engineering, 2) biology/predentistry/premedicine, 3) business/liberal arts/education. In addition, some specialized graduate courses are available to support those pursuing advanced degrees in education.

The department sponsors a section of the Society of Physics Students and the physics honor society Sigma Pi Sigma to provide fellowship for physics majors and other students of similar interests and to make available extracurricular activities which illustrate that physics in practice is a vital and active discipline.

*I. Bachelor of Science degree in Physics.* This degree is designed to offer students a thorough education in physics at the undergraduate level and to prepare them to pursue graduate study in physics as appropriate to their career aspirations. Professional physicists have traditionally experienced careers in education, industry and government, but a sound knowledge of basic physics has become increasingly important to other areas of endeavor as well. For example, a strong undergraduate background in physics is considered essential to a career as a commissioned officer in one of the high-technology branches of the Armed Forces. The curriculum for the B.S. degree in physics is comprehensive and includes 54 semester hours of physics, beginning with a one-semester introduction to physics course followed by a three-semester basic course in physics for engineers and physical scientists, a calculus-based sequence which emphasizes fundamental principles and problem solving, and which also includes a weekly two-hour laboratory each semester. The junior and senior years include upper-division courses in analytical mechanics, electricity and magnetism, mathematical physics, electronics, thermodynamics, optics, modern physics, and quantum mechanics. Research planning and senior research project in the senior year give students an opportunity to apply physics to a theoretical or experimental project or to the design and construction of apparatus.

Requirements for a Bachelor of Science degree in Physics also include five semesters of mathematics, four semesters each of English and foreign language, two semesters each of chemistry and history, and one semester of social science, as well as physical education and ROTC.

The program for physics majors retains flexibility in that a student who does not intend a profession in physics may, at the discretion of the department head, replace up to six credit hours of physics courses numbered above 300 with courses numbered above 300 in other science fields.

*II. Physics courses for majors in other fields.* As a service to other departments, and to meet the expectations of the college core curriculum, three separate basic physics sequences are individually designed to meet the requirements of specific groups of disciplines.

For the non-science majors, PHYS 203/253 and PHYS 204/254 (Physics for Liberal Arts Majors) constitute a survey sequence which emphasizes basic principles, with particular attention paid to the exciting developments of modern technology. For the biologist and potential physician or dentist, PHYS 205/255 and PHYS 206/256 (Physics for Biology and Premedicine) offer the basic principles, but with emphasis on the ideas and techniques which apply to these fields. For the scientist, engineer, and mathematician, and for students preparing to be secondary school teachers in general science or physical science, PHYS 210/260, PHYS 211/261, and PHYS 212/262 (Physics for Engineers and Physical Scientists) cover the fundamental principles of physics using elementary calculus. PHYS 313 is a continuation of this sequence covering modern physics. Descriptive courses in elementary astronomy, ASTR 201 and ASTR 202, are provided as electives. All basic science sequences have concomitant laboratories.

A student may not use both PHYS 203/204 and PHYS 205/206 in meeting degree requirements, nor can a student take either of these sequences after completing PHYS 210/211 or PHYS 210/212. However, should a student whose major does not require PHYS 210/211 complete PHYS 203/204 or PHYS 205/206 and then decide, for whatever reason, to complete the calculus-based sequence, PHYS 210 and PHYS 211 may satisfy General Elective requirements.

## Minor in Applied Physics

*Objectives:*

The minor in applied physics is designed to allow a student not majoring in physics the opportunity to learn many of the techniques of experimental physics and to obtain an exposure to the principles of modern physics.

*Competencies, Knowledge, or Skills to be Achieved:*

A student pursuing a minor in applied physics will become competent in the techniques of experimental physics. Skills in applied optics, electronics, solid state, laboratory and experimental techniques will be emphasized.

This minor is not approved for students majoring in physics

*Structure of the Minor:*

*1. Required Courses: (9 credit hours)*

| | | |
|---|---|---|
| PHYS 211/261 | 4 | (2nd semester calculus based physics) |
| PHYS 313 | 3 | (Modern Physics) |
| PHYS 451 | 2 | (Advanced Laboratory Physics) |

*2. Elective Courses: (9 credit hours)*

Choose three:

| | | |
|---|---|---|
| PHYS 101 | 3 | (Introduction to Physics) |
| PHYS 307/357 | 4 | (Electronic Instrumentation) |
| PHYS 308/358 | 4 | (Optics) |
| PHYS 315 | 3 | (Analytical Mechanics) |
| PHYS 410 | 3 | (Thermodynamics) |
| PHYS 419 | 2 | (Research Planning) |
| PHYS 420 | 3 | (Research Project) |

*3. Projected Course of Study*

Students are expected to have had two semesters of calculus and physics 210/260 and 211/261 or 212/262. Those students who have taken physics 205/255, 206/256 and earned a grade of B or higher are also eligible.

Total Credit Hours Required—18 (Plus two semesters of calculus)

## Physics Course Descriptions

PHYS 101 *Introduction to Physics* Three Credit Hours

Required of most freshmen majoring in physics.

An elementary course consisting of lectures on physics topics in their historical context from Galileo to the present. Covers fundamental techniques which are useful for learning this discipline. Class notes and library reading will be required.

Lecture: three hours.

PHYS 203 and PHYS 204 *Physics for Liberal Arts Majors* Three Credit Hours Each Semester

Prerequisite or corequisite for PHYS 203: PHYS 253

Prerequisite for PHYS 204: PHYS 203 and PHYS 253

Prerequisite or corequisite for PHYS 204: PHYS 254

This course presents physics in a manner suitable for students who do not have a strong background in mathematics. The course is designed primarily to help the non-scientist act in an informed way in today's technically oriented society. Topics covered in the two-semester course include mechanics, thermodynamics, electromagnetism, optics, and modern physics.

Lecture: three hours.

PHYS 205 and PHYS 206 *Physics for Biology and Premedicine* Three Credit Hours Each Semester

Prerequisites for PHYS 205: MATH 105 and MATH 106 or MATH 106 and MATH 107

Prerequisite or corequisite for PHYS 205: PHYS 255
Prerequisite for PHYS 206: PHYS 205 and PHYS 255
Prerequisite or corequisite for PHYS 206: PHYS 256
Required of all students majoring in biology or chemistry (B.A.)

A course designed to stress the principles and unifying concepts of classical and modern physics with emphasis directed toward biological applications. General topic headings covered in this course include kinetics and dynamics, heat, wave motion, electricity and magnetism, optics, and nuclear physics.

Premedical, predental, and preveterinary students, as well as biological science majors, will find this course particularly useful in preparing for careers.

Lecture: three hours.

PHYS 210, PHYS 211, and PHYS 212 *Physics for Engineers and Physical Scientists* Three Credit Hours Each Semester

Prerequisite for PHYS 210: MATH 131 (May be taken concurrently with MATH 131 with permission of the heads the student's major department and the Department of Physics.)
Prerequisite or corequisite for PHYS 210: PHYS 260
Prerequisites for PHYS 211 or PHYS 212: PHYS 210 and PHYS 260
Prerequisite or corequisite for PHYS 211: PHYS 261
Prerequisite or corequisite for 212: PHYS 262

Calculus-based introductory physics sequence. Kinematics, dynamics, electricity and magnetism, wave motion and sound, fluid statics and dynamics, thermodynamics, optics, and modern physics covered with no assumption of prior knowledge of physics.

Lecture: three hours.

PHYS 253 and PHYS 254 *Physics Laboratory for Liberal Arts Majors* One Credit Hour Each Semester

Prerequisite or corequisite for PHYS 253: PHYS 203
Prerequisite or corequisite for PHYS 254: PHYS 204

These laboratories are designed to correlate with the lecture material in PHYS 203 and PHYS 204, respectively. The experiments are designed to illustrate and emphasize the physical phenomena discussed in the corresponding lecture courses.

Laboratory reports stress writing to learn.

Laboratory: two hours.

PHYS 255 and PHYS 256 *Physics Laboratory for Biology and Premedicine* One Credit Hour Each Semester

Prerequisite or corequisite for PHYS 255: PHYS 205
Prerequisite or corequisite for PHYS 256: PHYS 206
Required of all students majoring in biology or chemistry (B.A.)

It is intended that the experiments in these laboratories follow the lecture material in PHYS 205 and PHYS 206, respectively. Laboratory technique and report writing will be emphasized. The experiments are arranged to correlate with the physical principles discussed in the corresponding lecture courses.

Laboratory: two hours.

PHYS 260, PHYS 261, and PHYS 262 *Physics Laboratory for Engineers and Physical Scientists* One Credit Hour Each Semester

Prerequisite or corequisite for PHYS 260: PHYS 210
Prerequisite or corequisite for PHYS 261: PHYS 211
Prerequisite or corequisite for PHYS 262: PHYS 212

The laboratories parallel and supplement the lecture material in PHYS 210, PHYS 211, and PHYS 212, respectively. Experiments utilize much modern equipment including microwave apparatus, oscilloscopes, spectrometers, etc. All areas of basic physics are covered, including measurement, statics, linear and rotational dynamics, wave phenomena, sound, light, thermodynamics, electricity, and magnetism. Emphasis is placed on proper experimental technique, error analysis, and technical report writing.

Laboratory: two hours.

PHYS 301 *Biological Physics* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

The applications of physics to the processes occurring in living systems. Among the topics to be discussed will be bioenergetics, radiation, biophysics, sensory biophysics, and bioelectricity. Attention also will be given to biomedical instrumentation.

Lecture: three hours.

PHYS 307 *Electronic Instrumentation* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Corequisite: PHYS 357

Required of all physics juniors.

Brief review of DC and AC circuits. Introductions to theory and applications of solid-state diodes, transistors and other semiconductors, amplifiers, waveform generators, operational amplifiers, transducers, and digital electronics.

Lecture: three hours.

PHYS 308 *Optics* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Required of all physics juniors.

Principles of geometrical and physical optics presented with attention to engineering applications. Topics covered include geometrical imaging, a-b ray analysis, fiber optics, interferometry, thin film optical filters, and polarization. Matrix methods are applied to lens systems, thin films, and polarization.

Lecture: Three hours.

PHYS 313 *Modern Physics* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Required of all physics juniors.

A continuation of the 210, 211, 212 physics sequence.

The fundamental experiments and their interpretation that led to the development of relativity and quantum mechanics from classical physics.

Lecture: three hours.

PHYS 315 and PHYS 316 *Analytical Mechanics* Three Credit Hours Each Semester

Prerequisites: PHYS 212 and PHYS 262; MATH 231

Required of all physics juniors.

Statics and dynamics of rigid bodies, Lagrangian and Hamiltonian dynamics, collision kinematics, central-force motion, oscillating systems, introduction to relativity.

Lecture: three hours.

PHYS 320 *Mathematical Physics* Three Credit Hours

Prerequisites: PHYS 212 and PHYS 262; MATH 231

Required of all physics juniors.

Emphasis on mathematical methods of theoretical physics. Topics may include coordinate transformations, vector calculus techniques, special functions, definite integrals, approximations, numerical methods of data reduction, eigenvalue problems, boundary-value problems, representation theory, perturbation theory.

Lecture: three hours.

PHYS 357 *Electronic Instrumentation Laboratory* One Credit Hour

Corequisite or prerequisite: PHYS 307

Required of all physics majors.

Laboratory parallels and supplements lecture material in PHYS 307.

Laboratory: two hours.

PHYS 358 *Optics Laboratory* One Credit Hour

Corequisite or prerequisite: PHYS 308

Required of all physics majors.

Laboratory parallels and supplements lecture material in PHYS 308.

Laboratory: two hours.

PHYS 403 and PHYS 404 *Electricity and Magnetism* Three Credit Hours Each Semester

Prerequisites: PHYS 212; MATH 231

Prerequisite or corequisite: PHYS 320

Required of all physics seniors.

The electrostatic field and its effect on matter, the properties of magnetic fields and magnetic materials, electromagnetic effects, vector potentials, displacement currents, Maxwell's equations, Lorentz force on particles, periodic currents.

Lecture: three hours.

PHYS 405 and *Quantum Mechanics* Three Credit Hours
PHYS 406 Each Semester

Prerequisites: PHYS 308, PHYS 313, PHYS 316

Prerequisite or corequisite: PHYS 320

Required of all physics seniors.

An introductory course in quantum mechanics with emphasis on both physical principles and mathematical techniques. Stress is placed on understanding how quantum mechanics is used in explaining the behavior of physical systems.

Lecture: three hours.

PHYS 409 *Intermediate Optics* Three Credit Hours

Corequisite or Prerequisite: PHYS 308 and MATH 232

This course is a continuation of Optics PHYS 308. It develops the Fourier analysis approach to physical optics. Topics covered include the optical transfer function, the wave theory of aberrations, spatial filtering, holography and applications, fiber optics, and nonlinear optics.

Lecture: three hours.

PHYS 410 *Thermodynamics* Three Credit Hours

Prerequisites: PHYS 206 and PHYS 256 or PHYS 212 and PHYS 262; MATH 107 or MATH 132

Required of all physics seniors.

Principles of thermodynamics presented with attention to engineering, chemical, and biological applications. First and Second Laws of Thermodynamics, especially as applied to closed hydrostatic systems and open steady-flow systems. Concepts of internal energy, heat flow, enthalpy, and entropy. Perfect gas processes. Carnot cycle for heat engines, heat pumps, refrigerators. Power output; mass flow equations; quality factor for mixed systems.

Lecture: three hours.

PHYS 415 *Special Topics in Physics* Three Credit Hours

Prerequisites: Permission of instructor.

Topics may vary by semester according to student interest and availability of instructor. The subject for a semester will be chosen from such topics as space physics, special relativity, and solid state physics.

Lecture: three hours.

PHYS 416 *Advanced Topics in Physics* Three Credit Hours

Prerequisites: Permission of instructor.

Similar to PHYS 415. The subject for a semester will be chosen from such advanced topics as group theory in quantum mechanics, magnetic resonance, and plasma physics.

Lecture: three hours.

PHYS 419 *Research Planning* Two Credit Hour
Required of all physics seniors.
An outstanding recent development in physics is chosen by one or more students and studied intensively.
Lecture: one hour
Laboratory: two hours.

PHYS 420 *Senior Research Project* Three Credit Hours
Prerequisite: PHYS 419
Required of all physics seniors.
The project started in PHYS 419 (Research Planning) is completed to include a written thesis and an oral presentation.
Lecture: one hour.
Laboratory: four hours.

PHYS 451 *Advanced Laboratory Physics* Two Credit Hours
Required of all physics seniors.
Experiments selected from famous fundamental measurements.
Laboratory: four hours.

## Astronomy Course Descriptions

ASTR 201 *Introduction to Astronomy: Sun and Planets* Three Credit Hours
A descriptive introduction to the universe, our sun and its solar system, the Earth and the other planets, asteroids, and comets. Practical observational astronomy. Planetary discoveries made by space craft. Life in the universe.
Lecture: two hours.
Laboratory: two hours.

ASTR 202 *Introduction to Astronomy: Stars and Galaxies* Three Credit Hours
The universe outside the solar system, the sun as a typical star, the Milky Way and other galaxies, pulsars, quasars, and black holes are studied.
Lecture: two hours
Laboratory: two hours.

ASTR 412 *Stellar and Galactic Astrophysics* Three Credit Hours
Prerequisites: PHYS 211 and MATH 132
The structures, atmospheres, dynamics, and evolutions of stars; the techniques of stellar abundance analysis and spectral classification; the reduction, eigenvalue problems, boundary-value problems, representation theory, and perturbation theory.
Lecture: three hours.

# Department of Political Science and Criminal Justice

Department Head: Boykin
Professors: Benson, Boykin, Davis, Moreland, Steed
Associate Professor: Feurtado
Assistant Professors: Bloss, Britz, Kuzenski

The Department offers academic majors in political science and in criminal justice; the criminal justice major becomes available in the 1998 fall semester.

Each major affords students an opportunity to obtain a broad liberal arts education that enriches their lives and acquaints them with the rights and responsibilities of citizenship. The course of study for students majoring in either political science or criminal justice begins with a set of core courses to introduce the student to the discipline. Students then have the opportunity to select from a list of specialized electives in their area of concentration and to increase their understanding of their field by taking courses in the related disciplines of anthropology, economics, history, psychology, and sociology as well as General Electives from other departments. As the central element of a general education, both political science and criminal justice provide preparation for graduate education and for useful and satisfying careers.

**Political Science Major:** The course of study for students majoring in political science prescribes a set of core courses to introduce the student to the discipline. In addition, each major must select one of the following departmental subfields for specialization in the junior and senior years.

A. American Government and Politics.
B. International Politics and Military Affairs.
C. Pre-Law and Legal Studies.

The discipline of political science seeks to describe and to explain political phenomena, including both foreign and domestic political institutions, the political process, political behavior, and contemporary political issues. Political science also studies the relationships of individuals with their governments, including the rights and responsibilities of citizens. The major has especially strong appeal for those who anticipate careers in law and government, particularly in the Foreign Service and Department of State, intelligence agencies, and the military services of the US Army, US Navy, US Air Force, and US Coast Guard.

**Criminal Justice Major:** The course of study for students majoring in Criminal Justice prescribes a set of core courses to introduce the student to the discipline. In addition, students have the opportunity to select from three clusters of courses including advanced criminal justice course work, courses in American government and politics, and courses which provide a broader liberal arts perspective. The major is designed to offer opportunities for criminal justice education at the college level which will provide capable personnel to meet the needs of the professionalization movement in this region and in the country. This is not a training or police academy program, but a liberal arts approach which emphasizes social and natural sciences as well as humanities and professional activities. Students who major in criminal justice anticipate careers at the local, state, and national levels in such areas as law enforcement, juvenile justice, corrections, and probation and parole.

## Major Requirements: B.A. in Political Science

The political science major consists of fourteen courses (42 credit hours) within the department. In addition, the major establishes certain distributional requirements outside the department, and it provides for six elective courses which students may use as they choose. The complete course of study is presented in the Courses of Study section of this catalog.

The fourteen courses required for a major in political science are distributed as follows: six core courses, five subfield courses, and three political science departmental electives.

First, each student is required to complete a specified core of six courses:

| | |
|---|---|
| PSCI 101 | Introduction to Political Science |
| PSCI 102 | American National Government |
| PSCI 231 | International Politics |
| PSCI 232 | Comparative Politics |
| PSCI 392 | Political Theory |
| PSCI 462 | Constitutional Law: Civil Rights and Liberties. |

Second, no later than the beginning of the fall semester of the junior year, each political science major must select one of the subfields for course concentration during the junior and senior years. The three subfields are **Subfield A: American Government and Politics, Subfield B: International Politics and Military Affairs, and Subfield C: Law and Legal Studies.** Majors must complete five courses within one subfield of their choice. Three of these courses are specifically required; the remaining two courses must be selected from the list of subfield electives as indicated below.

Third, to complete the required fourteen courses for the political science major, each student must also complete three additional political science courses (PSCI), two of which must be chosen from the American government and politics subfield (PSCI 301, PSCI 302, PSCI 303, PSCI 304, PSCI 305, PSCI 306, PSCI 307, PSCI 308, PSCI 309, PSCI 393, PSCI 396, PSCI 401, PSCI 402, PSCI 403, PSCI 499). The third must be an additional political science elective (any course with a PSCI prefix).

All courses within a subfield are open both to majors in other departments and to political science majors who are concentrating in one of the other two subfields. Subfield requirements and electives are listed below.

### Subfield A: American Government and Politics

JUNIOR YEAR

| **First Semester** | **Second Semester** |
|---|---|
| American Parties & Politics, PSCI 301 | Urban Politics, PSCI 302 |
| Approved (History) Elective | Approved (History) Elective |
| American Politics Elective | Political Theory, PSCI 392 |
| Biology, Chemistry, or Physics | Biology, Chemistry, or Physics |
| BADM 201 | Elective |
| ROTC | ROTC |

SENIOR YEAR

| **First Semester** | **Second Semester** |
|---|---|
| Pol. Issues & Public Policy, PSCI 401 | American Politics Elective |
| American Politics Elective | Departmental Elective |
| Constitutional Law, PSCI 462 | Departmental Elective |
| Elective | Elective |
| Elective | Elective |
| ROTC | ROTC |

*Required:*

| | |
|---|---|
| PSCI 301 | American Parties and Politics |
| PSCI 302 | Urban Politics |
| PSCI 401 | Political Issues and Public Policy |

Subfield electives (those students selecting this subfield must complete at least four electives chosen from the following):

| | |
|---|---|
| PSCI 303 | State and Local Government |
| PSCI 304 | American Political Thought |
| PSCI 305 | American Presidency |

| | |
|---|---|
| PSCI 306 | Legislative Process |
| PSCI 307 | Southern Politics |
| PSCI 308 | Public Opinion |
| PSCI 309 | Religion and Politics |
| PSCI 393 | Scope and Methods in Political Science |
| PSCI 396 | Politics and the Media |
| PSCI 402 | Politics of Bureaucracy |
| PSCI 403 | Topics in American Government and Politics |
| PSCI 498 | Senior Research Project |
| PSCI 499 | Internship |

### Subfield B: International Politics and Military Affairs

JUNIOR YEAR

| **First Semester** | **Second Semester** |
|---|---|
| PSCI 331 or PSCI 343 | Nat. Security Pol., PSCI 332 |
| Approved (History) Elective | Approved (History) Elective |
| American Politics Elective | Political Theory, PSCI 392 |
| Biology, Chemistry, or Physics | Biology, Chemistry, or Physics |
| BADM 201 | Elective |
| ROTC | ROTC |

SENIOR YEAR

| **First Semester** | **Second Semester** |
|---|---|
| Am. Foreign Relations, PSCI 431 | Int. Politics Elective |
| American Politics Elective | Int. Politics Area Elective |
| Constitutional Law, PSCI 462 | Departmental Elective |
| Elective | Elective |
| Elective | Elective |
| ROTC | ROTC |

*Required:*

| | |
|---|---|
| PSCI 331 | International Law or PSCI 343 Introduction to Non-Western Studies |
| PSCI 332 | National Security Policy |
| PSCI 431 | American Foreign Policy |

Subfield electives (those selecting this subfield must complete at least two electives chosen from any of the American government and politics courses listed above plus two subfield electives chosen from the following, one of which must be an area course):

| | |
|---|---|
| PSCI 331 | International Law |
| PSCI 333 | International Organization |
| PSCI 334 | Problems in International Law & Organization |

| | |
|---|---|
| PSCI 335 | Comparative Foreign and Defense Policies |
| PSCI 336 | Russia and the Commonwealth of Independent States |
| PSCI 337 | Far Eastern Affairs |
| PSCI 338 | Southeast Asian Affairs |
| PSCI 339 | Middle Eastern Affairs |
| PSCI 340 | Latin American Affairs |
| PSCI 341 | African Affairs |
| PSCI 342 | Terrorism, Political Ideology, and Violence |
| PSCI 343 | Introduction to Non-Western Studies |
| PSCI 393 | Scope and Methods in Political Science |
| PSCI 402 | Politics of Bureaucracy |
| PSCI 443 | Topics in International Politics |
| PSCI 498 | Senior Research Project |
| PSCI 499 | Internship |

## Subfield C: Law and Legal Studies

JUNIOR YEAR

| **First Semester** | **Second Semester** |
|---|---|
| Law & Legal Process, PSCI 361 | Intro to Criminal Justice, CRMJ 201 |
| Approved (History) Elective | Approved (History) Elective |
| American Politics Elective | Political Theory, PSCI 392 |
| Biology, Chemistry, or Physics | Biology, Chemistry, or Physics |
| BADM 201 | Elective |
| ROTC | ROTC |

SENIOR YEAR

| **First Semester** | **Second Semester** |
|---|---|
| Constitutional Law, PSCI 462 | Constitutional Law, PSCI 461 |
| Law & Legal Studies Elective | Law & Legal Studies Elective |
| American Politics Elective | Departmental Elective |
| Elective | Elective |
| Elective | Elective |
| ROTC | ROTC |

*Required:*

| | |
|---|---|
| PSCI 361 | Law and Legal Process |
| CRMJ 201 | Introduction to Criminal Justice |
| PSCI 461 | Constitutional Law: Powers of Government |

Subfield electives (those selecting this subfield must complete at least two electives chosen from any of the American government and politics courses listed above plus two subfield electives chosen from the following):

| | |
|---|---|
| PSCI 304 | American Political Thought |
| PSCI 331 | International Law |
| PSCI 393 | Scope and Methods in Political Science |
| PSCI 402 | Politics of Bureaucracy |
| PSCI 463 | Topics in Law and Legal Studies |
| PSCI 498 | Senior Research Project |
| PSCI 499 | Internship |
| SOCI 201 | Introduction to Sociology |
| SOCI 302 | Criminology |
| ENGL 411 | Writing in the Professions |
| BADM 211 | Accounting Principles and Practice |
| CRMJ 465 | Special Topics in Criminal Justice (with permission of Dept. Head) |
| CRMJ 371 | Criminal Law and Criminal Courts |
| CRMJ 373 | Criminal Evidence |

## *Minor in Non-Western Studies*

*Objectives:*

The minor in non-Western studies is designed to allow students to develop a multidisciplinary, directed course of study through which they will attain a well-rounded understanding of a regional (Asia, Middle East, Africa, Latin America) or functional (e.g., development, revolution) area.

*Competencies, Knowledge, or Skills to be Achieved:*

In addition to the above, students will have an opportunity to develop keener insight and appreciation for diversity. The current curriculum is highly Eurocentric; this program will not only allow minority students to learn about their origins, it will (perhaps more importantly) engage Euro-American students to widen their horizons. In addition, this specialization will prove especially beneficial for the student pursuing a graduate degree in such areas as International Business, International Studies, Comparative Literature, History, etc. It will also distinguish students entering military or other government service.

No students are excluded from pursuing this minor. Students may not, however, use any course toward satisfying both the minor requirement and a specific or area requirement in their major.

*Structure of the Minor:*

1. *Required Courses*

   Foreign language through the 202 level (equivalent to 12 hours); Introduction to Non-Western Studies (PSCI 343) (3 hours)
2. *Electives*

   Four of any of the below from at least two disciplines:

HIST 417
HIST 451
HIST 461
HIST 474
HIST 477
HIST 489

PSCI 337
PSCI 338
PSCI 339
PSCI 340
PSCI 341
PSCI 342
PSCI 433

GEOG 311

LANG 303*
LANG 304*
LANG 320*

ANTH 202

BADM 412

Other: relevant Independent Study in any discipline; approved Senior Research Project or Internship; any relevant course taught by departments as a special topic; any relevant literature and/or language course (Asian, African, Latin American, or Middle East).

*FREN, GERM, RUSS, or SPAN as appropriate.

3. *Projected Course of Study:*
Students will be required to file a declaration of intent with the director of the program by the end of the first semester of the junior year. This declaration will outline the projected course of study and will be approved by the director. In addition to approving this projected course of study, the director will assume responsibility for publicizing the program and for monitoring each student's progress toward fulfilling the requirements of the minor; in this latter capacity, the director will be responsible for verifying that the student has met the requirements of the minor and for notifying the Records Office to that effect.

Total Credit Hours Required—15 (plus 12 of language)

### Minor in American Politics: Democracy and the Political Process

*Objectives:*

This minor is designed to provide students with an understanding of the institutions and processes involved in the formulation of demands made on the American political system and the responsiveness of the authorities in the system to these demands.

*Competencies, Knowledge, or Skills to be Achieved:*

Through the study of topics such as the formulation and expression of public opinion, the effectiveness with which political parties create and maintain broad-based governing coalitions and the fidelity with which students should develop a solid grasp of the linkages between public opinion and public policy. Since democratic theory assumes the existence of this linkage, students completing the minor should have a solid understanding of the practice of American democracy. Since a number of courses in the minor require the quantitative analysis of data, students should also deepen their knowledge of the methods of the social sciences. The requirement that papers and reports be submitted should enhance mastery of the English language.

This minor is not approved for students majoring in political science

*Structure of the Minor:*

1. *Required Courses*

| | |
|---|---|
| PSCI 301 | American Parties and Politics |
| PSCI 308 | Public Opinion |
| PSCI 305 | American Presidency or PSCI 306 Legislative Process |

2. *Electives (choose two)*

| | |
|---|---|
| PSCI 304 | American Political Thought |
| PSCI 305 | American Presidency or PSCI 306 Legislative Process |
| PSCI 307 | Southern Politics |
| PSCI 309 | Religion and Politics |
| PSCI 393 | Scope and Method of Political Science |
| PSCI 396 | Politics and the Media |
| PSCI 401 | Political Issues and Public Policy |
| PSCI 403 | Topics in American Government and Politics |

*Total Credit Hours Required—15*

## Minor in International and Military Affairs

*Objectives:*

This minor is designed to introduce students to the field of international and military affairs and provide them with a greater understanding of the international environment in which individuals, states, and organizations operate. The minor will include an introduction to international and comparative politics as well as at least one regional area of the international system. The program's flexibility allows students to expand their introduction to this topic through the completion of two electives in regional studies, macro-based political views of the international system, international economics, national security, foreign policy, or some combination of these categories.

*Competence, Knowledge, or Skills to be Achieved:*

The minor will require students to acquire and apply critical analytical skills in order to achieve an understanding of the international system and its complex array of components. The required courses in international and comparative politics require students to consider the functions and components of the international system as well as the ideological and political differences between individuals, states, and organizations which comprise this system. A regional course requirement presents students with a more detailed analysis of how other states govern themselves and operate within the international system. The electives allow students to apply their newly developed tools for international and military affairs analysis to other geographical regions, macro-based political issues such as international law or organization, or international economics. Critical thinking and systematic analysis in the required courses and electives will present students with these tools for further dissection of the international system, allow a greater appreciation for the complex world we live in, and prepare them for military, political, legal, or business careers in an ever-increasingly interdependent world.

This minor is not approved for students majoring in political science.

*Structure of the Minor:*

*1. Required Courses*

*2. Electives (choose two)*

| | |
|---|---|
| BADM 320 | International Business |
| BADM 412 | International Economics |
| PSCI 331 | Introduction to International Law |
| PSCI 332 | National Security Policy |
| PSCI 333 | International Organization |
| PSCI 334 | Problems in International Law and Organization |
| PSCI 335 | Comparative and Defense Policies |
| *PSCI 336 | Russia and the Commonwealth of Independent States |
| *PSCI 337 | Far Eastern Affairs |
| *PSCI 338 | Southeast Asian Affairs |
| *PSCI 339 | Middle East Affairs |
| *PSCI 340 | Latin American Affairs |
| *PSCI 341 | African Affairs |
| PSCI 342 | Terrorism, Political Ideology, and Violence |
| PSCI 343 | Introduction to Non-Western Studies |
| PSCI 431 | American Foreign Relations |
| PSCI 443 | Topics in International Politics |

*Regional Course

*Total Hours Required—15*

## Minor in Law and Legal Studies

*Objectives:*

This minor is designed to introduce students in a systematic way to the American systems of civil and criminal justice; to provide an introduction to law and the legal system for students who are considering careers in law or criminal justice; and to provide an opportunity for students to undertake advanced law-related courses, grounded in a basic understanding of law and the legal system.

*Competencies, Knowledge, or Skills to be Achieved:*

The minor introduces students to legal reasoning, to case analysis, and to legal terms and citations as well as theoretocal matters. Aside from an understanding of the nature of the legal process, the minor seeks to develop each student's capabilities for critical thinking and systematic analysis.

This minor is not approved for students majoring in political science

*Structure of the Minor:*

*1. Required Courses*

| | |
|---|---|
| CRMJ 201 | Introduction to Criminal Justice |
| PSCI 361 | Law and Legal Process |
| PSCI 462 | Constitutional Law: Civil Rights and Liberties |

2. *Electives (choose two)*

| | |
|---|---|
| PSCI 331 | International Law |
| PSCI 392 | Political Theory |
| PSCI 402 | Politics of Bureaucracy |
| PSCI 461 | Constitutional Law: Powers of Government |
| PSCI 463 | Topics in Law and Legal Studies |
| PSCI 499 | Internship |
| CRMJ 371 | Criminal Law and Criminal Courts |
| CRMJ 373 | Criminal Evidence |
| SOCI 201 | Introduction to Sociology |
| SOCI 320 | Criminology |
| ENGL 411 | Writing in the Professions |

*Total Credit Hours Required—15*

## Major Requirements: B.A. in Criminal Justice
## (Effective Fall 1998)

The criminal justice major consists of fifteen courses (45 credit hours) within the department. In addition, the major establishes certain distributional requirements outside the department, and it provides for six elective courses which students may use as they choose. The complete course of study is presented in the Courses of Study section of this catalog.

The criminal justice core curriculum will consist of four courses (12 credit hours) to broadly introduce the student to the field. These core courses for the major are as follows:

*Required Courses*

| | |
|---|---|
| CRMJ 201 | Introduction to Criminal Justice |
| SOCI 302 | Criminology |
| CRMJ 370 | Police Systems and Practices |
| CRMJ 380 | Corrections |

Beyond the core courses, each student majoring in criminal justice will be expected to choose 11 additional courses (33 credit hours) to be distributed among three clusters of courses, for a total of 45 credit hours. Courses have been clustered as follows: Cluster A (5 courses, 15 credit hours) includes advanced criminal justice coursework; Cluster B (3 courses, 9 credit hours) includes criminal-justice-related/collateral courses; and Cluster C (3 courses, 9 credit hours) includes courses to provide for each student a broader, liberal arts perspective. (General Electives, which may also be selected from our criminal justice offerings, may take the total higher at the student's direction.) The specific courses offered in each cluster are as follows:

*Cluster A* (5 courses, 15 credit hours):

| | |
|---|---|
| CRMJ 371 | Criminal Law and Criminal Courts |
| CRMJ 372 | Critical Issues in Law Enforcement |
| CRMJ 373 | Criminal Evidence |
| CRMJ 375 | Criminal Justice Agency Administration |

| | |
|---|---|
| CRMJ 381 | Organized Crime |
| CRMJ 385 | Juvenile Justice |
| CRMJ 386 | Research Methods in Criminal Justice |
| PSCI 462 | Constitutional Law: Civil Rights and Liberties |
| CRMJ 465 | Special Topics in Criminal Justice |
| CRMJ 498 | Senior Research Project |
| CRMJ 499 | Internship |

*Cluster B* (3 courses, 9 credit hours):

| | |
|---|---|
| PSCI 302 | Urban Politics |
| PSCI 392 | Political Theory |
| PSCI 342 | Terrorism, Political Ideology, and Violence |
| PSCI 361 | Law and Legal Process |
| PSCI 401 | Public Policy Process |
| SOCI 201 | Introduction to Sociology |

*Cluster C* (3 courses, 9 credit hours):

To be chosen from among 40 other courses offered by the department (courses with a PSCI prefix).

## Political Science Course Descriptions

PSCI 101 *Introduction to Political Science* Three Credit Hours

Required of political science freshmen.

An introduction of politics in general and the discipline of political science in particular. Attention will be given to the basic questions and methods of political science with introductions to the subfields of the discipline.

PSCI 102 *American National Government* Three Credit Hours

Required of political science freshmen.

A study of the American constitution background, the rights and liberties of persons, public opinion, voting behavior, political parties, interest groups, and the organization and roles of the presidency, the Congress, and the national judiciary in policy formation and implementation.

PSCI 201 *American Politics and Government* Three Credit Hours

Prerequisite: Freshman mathematics sequence.

Satisfies Social Science Core Course requirement.

An introduction to American government that (1) provides students with a fundamental understanding of the structure and functions of American national governmental and political institutions; (2) develops a grasp of the importance of psychological, sociological, anthropological, and economic concepts and theories for the study of political life; and (3) develops a basic knowledge of research methods in the social sciences by the requirement that students conduct several analyses of voting behavior in presidential election contests. **Not open to political science majors; required of criminal justice majors.**

PSCI 231 *International Politics* Three Credit Hours

Required of political science sophomores.

An analysis of the international system, of the nation-state, the role of power in international politics, and the goals and instruments of a nation's foreign policy.

PSCI 232 *Comparative Politics* Three Credit Hours

Required of political science sophomores.

An analysis of the various political systems in terms of institutions, structure, and function. Emphasis on the development of common criteria for the evaluation and comparison of these divergent systems.

PSCI 301 *American Parties and Politics* Three Credit Hours

An analysis of the dynamics of American politics, with particular emphasis upon the factors entering into the formulation of public opinion, the role of interest groups, and the nature and operation of the party system.

PSCI 302 *Urban Politics* Three Credit Hours

A study of mass participation in urban political affairs, political parties on local level, the municipal reform movement, and the alternative approaches to the study of local political systems. Emphasis placed on the problems of local government in metropolitan areas.

PSCI 303 *State and Local Government* Three Credit Hours

A study of the role of the states in the American constitutional system, the institutional organization of state governments, and the relationships both between the states and the national government and among the various levels of state government.

PSCI 304 *American Political Thought* Three Credit Hours

A study of the basic political ideas which have developed in response to American constitutional, social, and economic conditions.

PSCI 305 *American Presidency* Three Credit Hours

A study of the modern presidency with attention to its origin and its historical and constitutional development. Emphasis placed on the examination of the various roles and functions of the president and on an analysis of presidents in action.

PSCI 306 *Legislative Process* Three Credit Hours

A study of the organizations and procedures of a legislative body with attention to its role in policy formation and its relationships with other parts as a political and governmental system.

PSCI 307 *Southern Politics* Three Credit Hours

A study of politics in the South in both regional and national contexts. Attention given to the politics of individual states and to an analysis of regional developments in such areas as race relations, political behavior, and party competition.

PSCI 308 *Public Opinion and Political Behavior* Three Credit Hours

A systematic analysis of political attitudes and behavior in relation to techniques of opinion survey design and analysis, voting behavior, and mechanisms for influencing options.

PSCI 309 *Religion and Politics* Three Credit Hours

A survey of the relationship between religion and politics in the U.S. with emphasis on political and theological cleavages between and within Protestantism, Roman Catholicism, and Judaism.

PSCI 331 *International Law* Three Credit Hours

A survey of international law as developed through treaties, customs, usages, and decisions of national and international tribunals.

PSCI 332 *National Security Policy* Three Credit Hours

An examination of the components of United States security policy. Consideration given to factors, both internal and external, affecting national security.

PSCI 333 *International Organization* Three Credit Hours

A survey of the development and functions of international organizations, including the League of Nations, the United Nations, and other international agencies seeking to promote harmony among nations.

PSCI 334 *Problems in International Law and Organization* Three Credit Hours

Prerequisite: PSCI 331 (International Law) or permission of course instructor.

An advanced survey of the elements of the application of the basic principles of international law with additional attention given to selected problems of international organization. Emphasis given to an in-depth study of jurisdiction over aliens, state liability for official acts, international reclamations, the regulation of hostilities, treaties, war, and diplomacy.

PSCI 335 *Comparative Foreign and Defense Policies* Three Credit Hours

A comparison and analysis of the foreign and defense policies of the Soviet Union, China, Britain, France, and selected Third World states, including an introduction to the defense strategies of the state and the relationship between foreign and defense policy in today's world.

PSCI 336 *Russia and the Commonwealth of Independent States* Three Credit Hours

A selective survey of the European and Asian countries that were republics of the late Soviet Union as well as the European nations that were members of the Soviet bloc.

PSCI 337 *Far Eastern Affairs* Three Credit Hours

A survey of China from 1911 to the present, with emphasis on the rise of communism in China, on the structure and operation of the Chinese People's Republic and on contemporary Chinese foreign policy.

PSCI 338 *Southeast Asian Affairs* Three Credit Hours

A study of the development of selected countries in the area with emphasis on the problems of transition, ideological orientations, roles in the Soviet-American competition, and the importance of the area to the national interests and foreign policy of the United States.

PSCI 339 *Middle Eastern Affairs* Three Credit Hours

A survey of the Middle East with emphasis on the role of the area in a foreign policy of the United States.

PSCI 340 *Latin American Affairs* Three Credit Hours

A study of Latin America with emphasis on the traditional power elements and on the importance of the area to the foreign policy of the United States.

PSCI 341 *African Affairs* Three Credit Hours

An analysis of the politics and modernization of Africa with emphasis on the newly independent states of the continent with their political, cultural, demographic, and historical characteristics and on tribal factors influencing the process of modernization.

PSCI 342 *Terrorism, Political Ideology, and Violence* Three Credit Hours

A study of selected contemporary ideologies and political violence, focusing on radical ideologies, revolutionary movements, and domestic and international terrorism, and other subjects which have important political consequences both domestically and internationally.

PSCI 343 *Introduction to Non-Western Studies* Three Credit Hours

The core course for the non-Western studies minor, this course is a multidisciplinary introduction to the history and politics of the societies of Asia, Africa, and Latin America. Attention is addressed to their experiences with colonialism and confrontations with modernization as well as to their current international relations.

PSCI 361 *Law and Legal Process* Three Credit Hours

A general survey of the American legal process (except for the criminal justice process) with emphasis on the nature and function of law, the organization of legal institutions (primarily the state and federal judiciaries), an introduction to civil law and the civil justice process, the roles of judges and lawyers, the judicial decision-making process, and the impact of court decisions.

PSCI 392 *Political Theory* Three Credit Hours

Required of political science juniors.

Major theoretical writing from the ancient Greeks to the present day; emphasis on a comparison of ideas and on the relationships between theories and contemporary problems.

PSCI 393 *Scope and Methods in Political Science* Three Credit Hours

May be used as a subfield elective.

An examination of methods in the scientific study of political phenomena with emphasis given to the systematic study of politics and contemporary research problems in political science, including research design, data collection, data analysis, and computer applications.

PSCI 394 *Contemporary Political Analysis* Three Credit Hours

Cannot be used as a subfield elective.

An introduction to some of the more important approaches to contemporary political science. Emphasizes the importance of concept formation in developing general strategies for the study of political phenomena. Some of the approaches studied include group theory, politics as process, the power approach, systems theory, structural-functional analysis, communications theory, game theory, and the individualistic-psychological approaches.

PSCI 396 *Politics and the Media* Three Credit Hours

An examination of theories of communication, of the relationships between the various types of media and the political world, of the impacts of media on political decision-making, and of political themes found in films, television, literature, and other media forms. Specific topics include the nature and impact of television journalism, the context and political themes of selected films and novels, and the political roles performed by electronic and other forms of media.

PSCI 401 *Political Issues and Public Policy* Three Credit Hours

An introduction to political analysis through consideration of important contemporary American political issues as they relate to public policy; attention given to specific issues as well as the policy process (formulation, implementation, and evaluation of policy).

PSCI 402 *Politics of Bureaucracy* Three Credit Hours

An introduction to the role of administration in the governmental process with emphasis on the principles of administrative control, personnel, and fiscal management.

PSCI 403 *Topics in American Government and Politics* Three Credit Hours

Prerequisite: PSCI 102 (American National Government) or permission of course instructor.

Selected special topics or problems in the general area of American government and politics; offered periodically as the special interests of faculty and students permit.

PSCI 431 *American Foreign Relations* Three Credit Hours

A study of American foreign policy with emphasis on the institutions and processes in the making of foreign policy and on important problems and developments in the postwar years.

PSCI 433 *Topics in International Politics* Three Credit Hours

Prerequisite: PSCI 231 (International Politics) or permission of course instructor.

Selected special topics or problems in the general areas of international politics and military affairs; offered periodically as the special interests of faculty and students permit.

PSCI 461 *Constitutional Law: Powers of Government* Three Credit Hours

A study of the underlying and basic principles of the Constitution as reflected in the leading decision of the United States Supreme Court with special attention directed to judicial review as it has shaped the powers of Congress, the presidency, and the federal judiciary itself.

PSCI 462 *Constitutional Law: Civil Rights and Liberties* Three Credit Hours

Required of political science seniors.

A study of the underlying and basic principles of the Constitution as reflected in the leading decisions of the United States Supreme Court with special attention directed to the Bill of Rights and the Thirteenth, Fourteenth, and Fifteenth Amendments.

PSCI 463 *Topics in Law and Legal Studies* Three Credit Hours

Prerequisite: PSCI 361 (Law and Legal Process) or permission of course instructor.

Selected special topics or problems in the general areas of public law and legal process; offered periodically as the special interests of faculty and students permit.

PSCI 492 *Topics in Political Philosophy and Theory* Three Credit Hours

Prerequisite: Political Theory, PSCI 392, or permission of the course instructor. Cannot be used as a subfield elective.

Selected special topics in the general area of political philosophy and theory; offered periodically as the interests of faculty and students permit.

PSCI 498 *Senior Research Project* Three Credit Hours

Required of all seniors as a prerequisite to graduation; an approved departmental elective may be substituted.

An independent research project resulting in a formal paper, the project must be approved by the department head in consultation with an appropriate member of the faculty who will supervise the project. Virtually any aspect of politics may be investigated. Especially recommended for those considering graduate or professional study.

PSCI 499 *Internship* Three Credit Hours

Prerequisite: permission of director of internships.

Internships with government and other agencies are offered to combine academic training with professional experience.

## Criminal Justice Course Descriptions

CRMJ 201 *Introduction to Criminal Justice* Three Credit Hours

An introduction to the American criminal justice system, including the history and philosophy of law enforcement, the nature of crime in the United States, an introduction to the substantive criminal law, the nature and theory of the criminal justice process from arrest to corrections, and the roles of the major actors in that process (police, prosecutors, defense lawyers, judges, and corrections personnel).

CRMJ 370 *Police Systems & Practices* Three Credit Hours

An introduction to law enforcement in the United States, including a brief history of policing, contemporary trends in criminality, and current issues facing police administrators. Attention will also be given to the Fourth, Fifth, and Sixth Amendments to the U.S. Constitution and their implications for law enforcement.

CRMJ 371 *Criminal Law and Criminal Courts* Three Credit Hours

This course examines the origin and general principles of criminal law, principles of criminal liability, and elements of offenses. Additionally, the course considers the ideology, structure, and role of the criminal courts in relation to criminal law.

CRMJ 372 *Critical Issues in Law Enforcement* Three Credit Hours

A critical analysis of contemporary issues in the law enforcement community, including the following: police stress, use of deadly force, police brutality, corruption, unionization, substance abuse by police officers, and other issues currently confronting law enforcement administrators and policymakers.

CRMJ 373 *Criminal Evidence* Three Credit Hours

An introduction to the types of evidence, collection of evidence, the chain of custody, and procedures relating to its introduction into judicial proceedings. Special attention is given to Fourth Amendment constitutional issues.

CRMJ 375 *Criminal Justice Agency Administration* Three Credit Hours

An introduction to criminal justice agency administration, including the following: the nature of criminal justice organizations, criminal justice personnel, group behavior in criminal justice organizations, and processes in criminal justice organizations.

CRMJ 380 *Corrections* Three Credit Hours

An introduction to corrections, correctional theory, and correction policy through the in-depth study of key areas in corrections, including correctional history, systems, policy, treatment programs, prison life, community-based corrections, probation and parole, and juvenile corrections.

CRMJ 381 *Organized Crime* Three Credit Hours

An examination and analysis of organized crime, of controversies surrounding the phenomenon, and of efforts aimed at its control. Attention will be given to defining organized crime, to its development, and to various theories that seek to explain its existence. Other topics include the activities that constitute the business of organized crime, the relationship between organized crime and curruption of governmental officials, the techniques used to control it, and the policy implications inherent in responses to organized crime.

CRMJ 385 *Juvenile Justice* Three Credit Hours

An introduction to delinquency, to the juvenile justice process from intake to disposition, to trends in the treatment of juvenile offenders, and to juvenile justice reform (decriminalization, diversion, deinstitutionalization, and due process).

CRMJ 386 *Research Methods in Criminal Justice* Three Credit Hours

An introduction to research and to statistical methods, data bases, and computer applications in relation to the various fields of criminal justice. Special attention will be given to the problems associated with collection and analysis of criminal justice data.

CRMJ 465 *Special Topics in Criminal Justice* Three Credit Hours

An advanced seminar designed to examine in-depth selected topics in criminal justice.

CRMJ 498 *Senior Research Project* Three Credit Hours

An independent research project resulting in a formal paper, the project must be approved by the department head in consultation with an appropriate member of the faculty who will supervise the project. Virtually any aspect of criminal justice may be investigated. Especially recommended for those considering graduate or professional study.

CRMJ 499 *Internship* Three Credit Hours

Prerequisite: permission of director of internships.

Internships with government and other agencies are offered to combine academic training with professional experience.

## Sociology Course Descriptions

SOCI 201 *Introduction to Sociology* Three Credit Hours

The scientific study of principles and comparisons in society and culture as these relate to population and communities, behavior systems, group collectivity and structure, social change, and institutions.

SOCI 202 *Social Problems* Three Credit Hours

Analysis of deviant behavior and those factors affecting the disorganization of small groups, complex organizations, and societies.

SOCI 210 *Social Sciences and Social Life* Three Credit Hours

Satisfies Social Science Core Course requirement.

It is the purpose of this course to provide students with an introduction to the social sciences, sociology, and specially selected social science topics. Additionally, the research methods of sociology and its related social sciences will be emphasized. This course will study the theoretical aspects of the topics as well as the more practical aspects of high quality research. This course emphasizes the content knowledge of the subject (sociology) and the research methods and techniques appropriate to the subject.

SOCI 302 *Criminology* Three Credit Hours

A study of crime, its causes, conditions, prevention, and treatment; a presentation of theories and hypotheses, supported by concrete facts, designed to assure the student that the theories purposed are based upon realities and exact observations.

SOCI 304 *Minority Group Relations* Three Credit Hours

An examination of the substantive issues in the study of majority-minority group relations and social processes, and the cultural orientations which are associated with these issues.

## Anthropology Course Descriptions

ANTH 201 *General Anthropology* Three Credit Hours

Man's biological and cultural origins as studied by physical anthropologists, archaeologists, and linguists.

ANTH 202 *Cultural Anthropology* Three Credit Hours

A comparative study of culture; habitat, technology, and economy; kinship and political organization; life cycles in primitive societies.

ANTH 307 *Man's Prehistoric Past* Three Credit Hours

Open to juniors and seniors only.

An introduction to archaeology which looks at kinds of prehistoric data and the methods used to obtain and interpret it. Attention will center upon the lives of hunters, food producers, and early community settlements.

# Department of Psychology

Department Head: Finch
Professors: Finch, Reilly, Saylor
Associate Professors: Politano, Lipovsky
Assistant Professors: Matthews, Bell, Leverett, Lassiter, Kessler

The major in psychology is designed around a broad liberal education whereby the learnings in the humanities and the sciences are integrated through an emphasis on the study of human behavior. Students in psychology develop an approach to learning based on empirical, objective methodology and statistical data analysis. These skills enhance critical thinking and permit theory construction and analysis. Students who graduate from this program are expected to have the knowledge base and the data analysis skills which would support graduate study in any of the specialty areas of psychology. They also should be well prepared for employment in positions which require understanding and motivating others. Examples of such employment areas include positions in personnel work, social service and mental health agencies, law enforcement, and sales.

The major program in psychology, which leads to the Bachelor of Arts degree, consists of 41 hours of course work in psychology, including PSYC 201, PSYC 202, PSYC 203, PSYC 301, PSYC 302, PSYC 304, PSYC 305, PSYC 306, PSYC 403, PSYC 402 or PSYC 404, PSYC 405, PSYC 407, and PSYC 410. To obtain a departmental recommendation for graduate study, the psychology major must also take PSYC 420.

The department also offers elective courses and supportive services to majors in other academic disciplines. In cooperation with the Department of Education, the Department of Psychology offers two graduate degree programs, leading to the Ed.S. degree in School Psychology and the M.Ed. in Community Counseling.

The Department of Psychology also sponsors the Psychology Club, which is open to all students interested in the study of human behavior regardless of their major. The club seeks to stimulate and maintain interest in scholarship and service and to promote closer social and intellectual association among students.

Psi Chi, the national honor society in Psychology, has a Citadel chapter open to undergraduate majors or minors with a 3.000 average who rank in the top third of their class. Psi Chi activities promote scholarship and research which prepare students for graduate school or other future endeavors in psychology.

## Minor in Psychology

*Objectives:*

The Psychology Department recognizes that a major in psychology is not for everyone. However, students from many diverse fields and areas of interest (e.g., business administration, pre-law, pre-med, education, law enforcement, and the military) may benefit from more in-depth knowledge of the behavioral sciences. The minor in psychology is designed to allow students maximum flexibility in choosing courses to complement their current major.

*Competencies, Knowledge or Skills to be Achieved:*

Students minoring in psychology have the opportunity to enhance their critical thinking and problem-solving skills. Students will also develop the ability to review the scientific literature (using computer assisted technology) and communicate their findings through multiple media (oral presentations, written papers, and paper presentations at conferences). The curriculum for the minor has been arranged in such a fashion as to maximize the flexibility needed to match the student's individual career goals while at the same time ensuring a knowledge of the broad areas of psychology.

This minor is not approved for students majoring in psychology.

*Structure of the Minor:*

*1. Required Courses: (13 credit hours)*

PSYC 203 Research Design in psychology*
PSYC 301 Experimental Psychology
*Students who have MATH 160, may substitute an additional psychology for Research Design (PSYC 203)
One course from each grouping:

| | |
|---|---|
| Cluster A | (PSYC 304) Abnormal Psychology |
| | (PSYC 306) Theories of Personality |
| Cluster B | (PSYC 403) Learning and Motivation |
| | (PSYC 405) History and Systems of Psychology |
| | (PSYC 302) Physiological Psychology |

*2. Electives: (6 credit hours)*

Choose two:
(PSYC 402) Cognitive Psychology
(PSYC 404) Industrial/Organizational Psychology
(PSYC 202) Developmental Psychology
(PSYC 305) Social Psychology

*Total Credit Hours Required—19*

## Psychology Course Descriptions

PSYC 201 *General Psychology* Three Credit Hours

Elective for sophomores, juniors and seniors.

An introduction to the scientific study of behavior; emphasis upon experimental investigation of such fields as perception, motivation, learning, emotions, physiology, and personality.

PSYC 202 *Developmental Psychology* Three Credit Hours

A study of the development of the individual from prenatal to senescent stages, emphasizing growth in intelligence, motor behavior, perception, cognition, socialization, and emotion. Empirical findings and theoretical interpretations in the study of human behavior will be explored.

PSYC 203 *Research Design in Psychology* Three Credit Hours

Prerequisite: PSYC 201 or PSYC 209

An introduction to descriptive and inferential statistics used in psychological experimentation. Particular emphasis is placed upon hypothesis testing by means of the t-test and randomized designs of the analysis of variance.

PSYC 209 *Psychology of Individual Behavior* Three Credit Hours

Prerequisite: Freshman mathematics sequence.

This course introduces students to the methodology of the social sciences. From a basic psychometric and experimental foundation, students will learn scholarly search strategies through CD-ROM databases and print indices. Reading, writing, and oral communication will be emphasized as students become better consumers of social scientific knowledge. The quest for knowledge about the human experience will be discussed within the context of scientific ethics. **PSYC 209 meets the Social Science Core course requirement. Not open to psychology majors.**

PSYC 301 *Experimental Psychology: Methodology and Programming* Four Credit Hours

Prerequisites: PSYC 203

This course introduces students to the methods of scientific inquiry used by psychologists. Students will learn how to design studies and how to analyze data using computer programs. Emphasis will be placed on critical thinking and clear communication.

PSYC 302 *Physiological Psychology* Four Credit Hours

Prerequisites: PSYC 301

This course introduces students to the biological bases of behavior through classic didactics and through exemplary readings in physiological experimentation. Students will develop and demonstrate a range of research skills.

PSYC 304 *Abnormal Psychology* Three Credit Hours
Prerequisite: PSYC 201 or PSYC 209
A study of fundamental theory and research in the area of abnormal behavior. Emphasis is on symptoms, etiology, and treatment of psychopathology and behavior problems.

PSYC 305 *Social Psychology* Three Credit Hours
A study of the individual in relation to his social environment with special attention to group behavior, communication, conformity, leadership, aggression, and interpersonal attraction.

PSYC 306 *Theories of Personality* Three Credit Hours
A study of major contemporary theories of personality with special emphasis on the biological and psychological foundations and integrative aspects of personality.

PSYC 402 *Cognitive Psychology* Three Credit Hours
Prerequisite: PSYC 201 or PSYC 209
This course surveys the theoretical and empirical work in the area of cognitive psychology. Topics include pattern recognition, attention, memory, problem solving, and comprehension. Students will become familiar with models of cognition through didactics and experiential exercises.

PSYC 403 *Psychology of Learning* Three Credit Hours
Prerequisite: PSYC 201 or PSYC 209
A comprehensive and critical review of the experimental literature in the area of learning and motivation, including the major learning theories and the motivational determinants of behavior.

PSYC 404 *Industrial/Organizational Psychology* Three Credit Hours
Prerequisite: PSYC 201 or PSYC 209
Application of psychological principles to the world of work. Specific topics include concepts of work, job satisfaction, personnel selection, performance appraisal, human engineering, leadership, and organizational behavior.

PSYC 405 *History and Systems of Psychology* Three Credit Hours
Prerequisite: PSYC 201 or PSYC 209
Historical survey of psychology, emphasizing contributions of major “schools” of psychology, theories, their place in science, and current theoretical trends.

PSYC 407 *Psychological Testing* Three Credit Hours
Prerequisite: PSYC 201 or PSYC 209
A survey of the theory and principles of psychological testing, demonstration and discussion of representative tests of intelligence, aptitude, achievement,

interests, and personality.

PSYC 410 *Advanced Psychological Study* Three Credit Hours

Required of all senior psychology majors; open to others with the permission of the instructor.

A study of selected critical issues in contemporary psychology, encompassing the various aspects of the discipline. Special emphasis will be given to integrating concepts, principles, and skills learned from earlier courses and related disciplines.

PSYC 418 *Internship in Psychology* Three Credit Hours

Prerequisite: Permission of department head

Internships providing student observation and participation in a psychologically oriented activity may be periodically offered to combine academic training with professional experience. Students will be expected to relate internship experiences to the psychological literature.

PSYC 420 *Research Project* Three Credit Hours

Prerequisite: approval of department head

An independent research project culminating in a formal paper. Required of students planning graduate study and recommended for others. Approval for enrollment based on capability of applicant and the acceptance of a written proposal.

PSYC 463 *Special Topics in Psychology* Three Credit Hours

Prerequisites: PSYC 201 or PSYC 209 and permission of department head

This course is designed to focus on a current problem, technique, or theory in the field of psychology.

The curriculum for the psychology major is based on a classic liberal education model in the field. Required courses provide a solid foundation, preparing students for graduate education or entry level employment. The field of psychology is much more diverse than can be fully reflected in our required curriculum, yet limited resources make a full slate of elective courses in psychology impossible. Through a single *special topics* course, the department can offer (on at least a bi-annual basis) courses that will expose students to the frontiers of the field while we maintain a focus on the mainstream of psychology through required courses. Non-majors, who have at least surveyed the field through PSYC 201 or who have been introduced to the social scientific process through PSYC 209, may also round out their curriculum with this course as a non-departmental elective.

# Organization

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